The Mining Journal
AND ATMOSPHERIC RAILWAY GAZETTE,

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

No. 556.---Vol. XVI.] LONDON: SATURDAY, APRIL 18, 1846. [Price 6d.

MINE MATERIALS.—TO BE SOLD, BY AUCTION, at WOOLSON'S COLLIERY, near SAUNDERSFOOT, Pembrokeshire, on the 22d day of April next, ONE PUMPING-ENGINE, 30-inch cylinder, 6-feet stroke, with two boilers, 21 feet long and 5½ diameter; about 40 fms. of pumps, 12-inch bore, including two working pieces of same size, lined with copper and brass.

ONE PUMPING-ENGINE, 18-inch cylinder, 4-feet stroke, with one boiler; about 30 fms. of 8-inch pumps, with brass working-piece and pole. This engine is fitted with a fly-wheel, about 5 tons weight, and spur gearing, and can be adapted for pumping or winding.

ONE WINDING-ENGINE, 18-inch cylinder, 3½-feet stroke, with fly-wheel and drum, complete.

An UNDERGROUND PUMPING MACHINE, with 3-inch pipes complete; and a large assortment of coal waggons, tram plates, bar-iron, pit timber, elm balks, chains, both round and flat, wire ropes, windlass beams, horse gin, spur-wheels, 3-inch pipes, together with a large assortment of colliery stores.

The colliery is very conveniently situated for shipping, being within a few yards of the Saundersfoot Railway, and about a mile from the harbour of Saundersfoot, where vessels can load at any time. Saundersfoot is about four miles from Tenby, to which place steam-boats from Bristol run twice a-week. 1

The whole may be viewed at any time.

Apply to Thos. Stokes and Co., Hean Castle Collieries, near Saundersfoot, Pembrokeshire.

VALUABLE MINING MATERIALS FOR SALE.—TO BE SOLD, BY PUBLIC AUCTION, by Mr. GEORGE SEALY, on Monday, the 4th of May next, at Eleven o'clock in the forenoon, at WHEAL PROVIDENCE MINE, in the parish of Gwinear, the MATERIALS on the CARLOOSE MINE, consisting of—

An excellent 60-inch cylinder PUMPING-ENGINE, 8-feet stroke in shaft, and 9½-feet in cylinder, with two boilers, 24 tons steam pipes, &c., complete.

A very good CRUSHING MACHINE, complete, nearly new.

A 25-ft. WATER-WHEEL, 2 ft. on breast, with 6-head stamps, complete, & nearly new.

The CAGE of a STEAM-WHIM, with perpendicular iron axle, complete.

A very good capstan, shears, and balance-bob.

33 fathoms 12-inch pumps		1 13-inch	ditto windbores
16 „	11-inch ditto	1 11-inch	ditto
14 „	10-inch ditto	3 9-inch	ditto
17 „	9-inch ditto	2 8-inch	ditto
2 14-inch H-pieces		1 6-inch	ditto
2 14-inch top door ditto		3 9-inch	working barrel
2 14-inch poles, stuffing-boxes and glands, and cases to suit		1 11½-inch	ditto
1 9-inch ditto	ditto	2 9-inch	clack seat pieces
3 14-inch windbores		1 11-inch	ditto
		75 fathoms of 12-inch rods, nearly new.	

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Faggoted strapping-plates, swords, and caps; flanch-rod, and other bolts and bars, staples and glands; cisterns, 2, 3, and 4-feet whim sheives; 320 fms. 9-16 and ½-inch whim chain; 12-inch capstan-rope, 90 fms. long; an axle and sockets of water-wheel; old cast and wrought-iron; sockets of an angle-bob, &c.

TO BE LET, AND SOLD, BY TICKET, on Monday, the 27th day of April, 1846, at the Church-house, BIDDULPH, in the county of Stafford, at Four o'clock in the afternoon precisely—subject to conditions, which will be announced at the time of sale—that valuable working COLLIERY, known by the name of the FORGE COLLIERY, in the parish of Biddulph, being two beds, or seams, of coal, known by the names of the "Crab-tree," or "Four-feet," and "Little-row" Mines; the whole is now in full operation, with two steam-engines, boilers, &c., complete, along with the whole of the other COLLIERY MATERIALS, MACHINES, ROPES, &c., nearly new. The mines also contain TWO valuable PUMPS—the one being 8½ inches diameter, the other 11½, and quite new. 3

The sales at this colliery average 100 tons a-week of coal and slack, but is capable of being extended to 300 tons, by the advantages of there being a wharf on the Macclesfield Canal belonging to it, and only two miles distant from the colliery; it has also great advantages in being the nearest colliery to the market towns of Congleton and Macclesfield—the distance from the former being three, from the latter 11½, miles. The "Four-feet," or "Crab-tree," coal possesses many good qualities—being a good house coal, and the slack excellent for coking. Should the projected branch of the Congleton and Crewe Railway pass through Biddulph, it would considerably improve the value of this coal-field, and would prove a valuable investment to the purchaser.—Further particulars may be obtained from Mr. N. Bailey, and Mr. S. Gosling, on the premises.

IMPORTANT NOTICE TO ENGINEERS, IRON- FOUNDERS, IRON DEALERS, AND OTHERS.—The whole of the very valuable MACHINERY, ENGINES, TOOLS, CRANES, WEIGHING-MACHINES, PATTERNS, BOX-PARTS, and MISCELLANEOUS STOCK, at the PARK IRON-WORKS, in Sheffield, WILL BE OFFERED, by the proprietors, FOR SALE, by Mr. G. O. BROWN, on Monday, the 11th day of May next, and following days, unless a suitable offer in the interim should be made for the whole, in one or two entire lots—in which case due notice will be given.—Catalogues will be ready one week previous, and will be announced, with further particulars, the first week in May. Mr. W. Johnson, at the works; or Mr. G. O. Brown, of Rotherham, will give every information which may be required. 4

FOR SALE, BY PRIVATE CONTRACT, at TRESAVEAN MINE, in the parish of Gwennap, Cornwall, an 18-inch cylinder STEAM WHIM-ENGINE, with brass air-pump and foot valve, cage fly-wheel, &c., in good condition; also a 60-inch cylinder, top, bottom, PISTON and ROD.

For viewing the same, apply to the agents on the mine, and for price and particulars to Capt. Richards, Redruth.—Redruth, April 16, 1846. 5

TO MINERS AND ENGINEERS.—TO BE SOLD, a PAIR of 8-horse HIGH-PRESSURE MARINE ENGINES—new. Also, second-hand, an excellent 40-horse HIGH-PRESSURE ENGINE, and a 6-horse CORNISH ENGINE. The two first with new boilers—complete; the small one with a good boiler: they will be sold very reasonable. They are now near Chudleigh, Devon, and the new boilers are in London.—Address H. Weston, Esq., Chudleigh Knighton; or J. Reeve, engineer, Belle Vue, Bovey Tracey, Devon.

TO IRONMAKERS.—TO BE LET, the IRONWORKS and PREMISES situated at PEMBREY, near Llanelly, Carmarthenshire. There are two furnaces, casting-house, and blowing-engine, now erected. These works are within a mile of Burry Port—half a mile from Pembrey Harbour, and the South Wales Railway will pass within a quarter of a mile of these works. Large quantities of iron ore pass these works to furnaces 11 miles inland—the iron having to be shipped at Pembrey. To persons understanding the making of iron, this presents an eligible opportunity of entering into the trade at a small outlay.—Apply to Mr. J. Stanley, Pembrey, Swansea, Carmarthenshire.—Pembrey, April 7, 1846. 7

VALUABLE PATENT FOR SALE—RODDA'S SMOKE- CONSUMING APPARATUS, whereby an important SAVING OF FUEL IS EFFECTED.—This PATENT, which is well known, and its power and efficiency in the consumption of smoke admitted, as well as the great economy in the quantity of fuel employed, is now OFFERED FOR SALE by the proprietor, who, from the success which has attended its application in London, Leeds, Bradford, Sheffield, Derby, Leicester, Nottingham, and many other places, has perfect confidence in stating, that it would become highly valuable if in the hands of parties who would direct their attention to its more general application, and protect it from infringement. It has been used for several years in the breweries of Messrs. Barclay, Perkins, and Co., and of Messrs. Truman and Hanbury; also, at Messrs. Robinson and Belville's Grate Manufactory, Holborn, as well as other places in the metropolis, where it may be seen in operation. 8

For particulars apply at the offices of H. English, Esq., 5, Shorter's-court, Throgmorton-street, where plans, models, and testimonials may be seen, and any necessary information given.—St. Austell, Cornwall, April 15, 1846.

IMPROVEMENT IN TREATING TIN ORES.— Messrs. POLKINGHORNE & CO. beg to acquaint ADVENTURERS, and OTHERS interested, in TIN MINES, that they have just obtained HER MAJESTY'S LETTERS PATENT for the SOLE USE of a COMPOUND SOLUTION, effectually to CLEANSE TIN ORE from all extraneous metals—thereby increasing its value from £2 to £4 per ton.

Messrs. P. and Co. will be ready shortly to supply the article from their manufactory, *COPPERHOUSE, HAYLE, CORNWALL,* 9

in casks of 10 gallons each, which quantity is sufficient for a ton of ore.—Price 10s. per cask, and license 5s. per ton of ore.—N.B. Every information can be obtained by applying at the patentee's offices, 12, Clement's-lane, London.—April 4, 1846.

STEAM COAL—WITHOUT SMOKE, as per experiments made at her Majesty's Dockyard, Woolwich.

CAMERON'S COALBROOK STEAM COAL, AND SWANSEA AND LOUGHOR RAILWAY COMPANY.—(Completely Registered and Incorporated.)

OFFICES—2, MOORGATE-STREET, LONDON. 10

The directors are now prepared to supply steam ship companies, manufacturers, shippers, and others, with the company's steam coal, either at the company's wharf at Swansea, or in London. A statement, showing by comparative trial the superiority of this coal for steam purposes over every other, and a scale of prices, may be had on application at the company's offices here, or at their wharf at Swansea.—March 18, 1846.

PATENT FUEL COMPANY (WARLICH'S PATENT). REDUCTION IN PRICE.

Private families and manufacturers will find this FUEL to be 25 per cent. more durable than the best coal—to be much cleaner than the best coal, and to emit less smoke than coal, and it makes a bright, pleasant, and cheerful fire.—Orders may be sent to the secretary; or to the company's works, Stowage, Deptford; or to the depôt, at Messrs. Coles, Child, and Co.'s wharf, Belvedere-road, Lambeth. Price at Deptford Works, 20s. per ton, of 240 blocks; ditto Lambeth depôt, 22s. Cartage from either place according to distance. This fuel may also be had of Messrs. W. and J. Horne, Falcon Wharf, Bankside; and at the depôt at Druce's landing wharf, Paradise-row, Chelsea. 11

WILLIAM NICHOLAS DE MATTOS, Secretary.

Patent Fuel Company, 15, St. Mary Axe.

RIVER TRENT NAVIGATION.—In the month of September next, a SURVEYOR of the WORKS of the RIVER TRENT NAVIGATION will be REQUIRED by the proprietors of that undertaking.—Applications, accompanied by testimonials, must be sent in on or before the 30th day of May next, to Mr. Tallents, solicitor, Newark, who will give such information as may be required as to the duties of the office.—Newark, April 14, 1846. 12

WHEAL TREVENNA, ST. NEOT.—WANTED, for the above mine, a good WATER-WHEEL, from 30 to 40 feet in diameter, and 3 to 4½ feet in width. Persons having a wheel of the above dimensions to dispose of, should make application (stating the terms on which they would sell the same) to Mr. Thomas Milton, of Liskeard, the purser.—Dated April 7, 1846. 13

TREGOTHNAN CONSOLS MINING COMPANY.—All PERSONS having CLAIMS upon this COMPANY are requested forthwith to forward the particulars thereof to Robert B. Pitman, Esq., the auditor, No. 5, Powis-place, Great Ormond-street, London, that the same may be examined by him, with a view to their speedy discharge by the directors.—April 13, 1846. 14

DEVON CONSOLS TIN MINES.—These extensive mines have been partially in course of working for many years, and produced large quantities of very superior TIN; they are situated about 10 miles from Plymouth, and accommodated with good roads, useful buildings of every description, and an excellent stock of working, mining, and smelting materials. The character and state of these mines present considerable interest in the minds of respectable miners, especially with reference to the present price of tin, and the future prospects of the tin trade. The deepest mine is of comparatively shallow depth, being only 10 fms. below the adit level—a level which the former proprietors completed at a cost of upwards of 2000*l*.

There are several mines on the different leads of comparatively shallow depths, being mostly adit levels, from all of which considerable quantities of tin have been obtained; and the intention of the present adventurers is, to intersect the whole at the deepest point of the great mine, as well as to work the deepest mine in a scientific manner. 15

These mines are held on lease for 21 years from Christmas, 1845, at 1-20th dues.

To meet the outlay expended, and for the further prosecution of the mines, smelting-works, &c., the present proprietors purpose dividing the concern into 2000 shares, of £2 each—£1 per share of which will be set apart for effectually working them.

In regard to the smelting business, it should be considered, that there are not at present any works of this kind in Devon; and Plymouth being considered an eligible spot for the erection of such an establishment, negociations have been commenced for the purchase of a freehold for the purpose—to which port tin, from all parts of Cornwall, may be easily conveyed.

As soon as the company is formed, a general meeting will be called, to complete the details of the managements, &c.; in the mean time, applications for shares may be made to Messrs. Willesford and Tucker, solicitors, Tavistock, Devon.

VENTONGIMPS MINING COMPANY.—The undersigned having arranged with the directors of the late Cornubian Company for taking over the machinery and plant, as also the Ventongimps setts, for the purpose of working these setts by a new company, to be called the VENTONGIMPS MINING COMPANY, formed and managed by a committee of shareholders on the cost-book system, and composed of 1000 shares, hereby give Notice to the HOLDERS of CORNUBIAN SCRIP SHARES, that any of them holding more than three shares, and desirous of joining this new company, may obtain ONE Ventongimps share for every such three shares, by application (in the form at foot of this advertisement), sent to the office of Mr. James Hay, 4, Austinfriars, London, on or before the 28th April next, after which day the allotment of new shares will be made, irrespective of the preference above-named. 16

London, March 27, 1846. (Signed) JAMES HAY.
ABRAHAM LINDO MOCATTA.
GEORGE MACKAY.

FORM OF APPLICATION.

Gentlemen,—With reference to your advertisement of the 27th of March last, and being a holder of Cornubian scrip shares (the dates and numbers of which I hereby subjoin), I beg to apply for the allotment of shares in the Ventongimps Company, and I engage, on receiving the same, to subscribe to such rules and regulations as the committee of management may approve of.

I am, Gentlemen, your obedient servant,

To Messrs. James Hay, A. L. Mocatta, G. Mackay.

CONSOLIDATED TRETOIL MINING COMPANY.—The directors hereby give Notice, that, at a special general meeting of the shareholders of this company, held at the offices, 8, George-yard, Lombard-street, on the 4th inst., a CALL of TEN SHILLINGS per share was made, PAYABLE on or before Saturday, the 25th inst. The shareholders will, accordingly, oblige by paying the amount of the said instalment on their shares to the secretary on or before that day, and by forwarding their certificates to the offices, that the payment may be marked thereon.

It was also unanimously resolved,—That all shares on which the third call remains in arrear of payment at this time, be absolutely forfeited. HENRY THOMAS, Secr.

Mining Offices, 8, George-yard, Lombard-street, London, April 7, 1846. 17

LAMERHOOE WHEAL MARIA MINING COMPANY.— At a Special General Meeting of the adventurers in the Lamerhooe Wheal Maria Mine, held at the offices of the secretary, No. 4, King-street, Cheapside, on Thursday, the 16th April, 1846, pursuant to circular and advertisement,

JOHN EDWARDS, Esq., in the chair. 18

The advertisement convening the meeting was read—

The secretary read the report and accounts, which, having been submitted to the meeting, it was—

Resolved,—That the report, with the accounts now laid before the meeting, be received and adopted, and that the same be printed; and the accounts, with the resolutions passed at the present meeting, be advertised in the *Mining Journal*.

Resolved,—That, for the convenience of the shareholders, all transfers of shares shall be sent, in the first place, to the secretary, who will acknowledge the receipt thereof to the purchaser, and send such transfers to the purser for registration.

Resolved,—That the following gentlemen do form the committee of finance and management:—Messrs. J. Edwards (chairman), P. Davey, W. Morrison, J. J. Hays, G. W. Price, D. Nutt, H. Smith, W. Pegg, and T. Ruston.

Resolved,—That, in accordance with the suggestions in the report of the committee, which are hereby approved and adopted, a meeting of the proprietors be convened every alternate month, when the monthly cost-sheets and accounts will be submitted and passed.

Resolved,—That a call of 2*l*. per share be now made, and that the same be paid in four equal instalments of 10s. each, at such time as the committee may deem fit, and that circulars, advising the same, and the day of payment of the first instalment, be transmitted to the proprietors.

Resolved,—That the cordial thanks of the meeting be given to the chairman and members of the committee, for their zealous attention to the affairs of the company, and for the gratuitous services rendered by them. Signed, by order of the meeting,

4, King-street, Cheapside, April 16, 1846. JAMES CROFTS, Secretary.

The following statement of accounts was submitted to the meeting:—

Dr.—Call of 5s. per share, due 18th of June, 1845	£512	0	0
Call of 5s. per share, due 1st of November, 1845	512	0	0
Call of 5s. per share, due 10th of March, 1846	512	0	0
Call of 5s. per share, due 10th of April, 1846	512	0	0
£1 per share on 2048 shares	£2048	0	0
Cr.			
1845—Cost-sheet for June	£108	18	9
„ July	119	2	7
„ August	125	8	5
„ September	107	5	3
„ October	196	14	8
„ November	162	18	6
„ December	108	17	11
1846— „ January	129	9	11
„ February	172	8	4
Law expenses	9	2	6
Deputation expenses	10	0	0
Secretary's salary, stationery, books, postages, and use of offices and rooms for meetings	53	9	4
Arrear on calls—5s. per share, due 18th of June, and 5s. per sh., due 1st of November, 1845	18	15	0
Arrear on calls—5s. per share, due 10th of March, and 5s. per share, due 10th of April, 1846	208	15	0
Cash at bankers'	516	13	10
Total	£2048	0	0

London, April 16, 1846. JAMES CROFTS, Secretary.

TINCROFT MINING COMPANY.—At the Annual General Meeting, held at the offices of the company, 44, Finsbury-square, on Tuesday, the 14th inst., pursuant to advertisement, which was read from the *Mining Journal* of the 21st March last. J. GROUT, Esq., in the chair.

The report of the directors, also one from Capt. Paul, the agent at the mine, having been read, and a statement of accounts submitted, the following RESOLUTIONS were passed:

Moved by Mr. James Smith, seconded by Mr. M. D. Lindo, and carried unanimously,

1. Resolved,—That the report and accounts now read be received, accepted, and entered on the minutes.

Moved by Mr. John Field, jun., seconded by Mr. R. James, and carried unanimously,

2. Resolved,—That there be an annual election of two auditors—each to lodge 10 shares (as his qualification) with those of the directors, and that, for the ensuing year, such office be filled by Messrs. J. J. Iselin and George Mackay. 19

Moved by Mr. James Smith, seconded by Mr. John Field, jun., and carried unanimously,

3. Resolved,—That the thanks of this meeting be given to the chairman and directors for their valuable attention to the interests of the company.

MR. H. B. RYE (from Cornwall), MINE AND RAILWAY SHARE AGENT, 80, OLD BROAD STREET, LONDON.
Mines inspected, and every information may be obtained on application. 20

THOS. P. THOMAS, of the late firm of Rye and Thomas, MINE AGENT, AND DEALER IN RAILWAY AND OTHER SHARES, 80, *OLD BROAD-STREET, LONDON.* 21

JAMES LANE, SHARE AGENT, *HALL OF COMMERCE, LONDON.* 22

WILLIAM TRENERY, DEALER IN RAILWAY AND MINING SHARES.—ESTABLISHED TEN YEARS.
OFFICES, No. 50, THREADNEEDLE-STREET, LONDON. 23

PAUL RABEY, Jun., and CO., MINE AND RAILWAY SHARE AGENTS.
OFFICE—No. 12, COPTHALL-COURT, LONDON. 24

WILLIAM FOX and SON, No. 53, CASTLE-STREET, LIVERPOOL, have always on SALE PIG-IRON, RAILWAY BARS, CHAIRS, and IRON of every description.—TIN PLATES, WIRE, &c. 25

MESSRS. LAMOND, SMALE, and LAMOND'S PUBLIC SALE OF RAILWAY SHARES, &c., are HELD, at the Hall of Commerce Threadneedle-street, every TUESDAY and FRIDAY, at One o'clock precisely.—Orders received until Four o'clock of the day prior to sale.—London, April 17, 1846. 26

STEAM-ENGINES.—From 8 to 20-horse power ENGINES ALWAYS IN STOCK.
Apply to Mr. CAPPER, ENGINE-MAKER and FOUNDER, BIRMINGHAM.
Price.....£14 *per horse-power.* 27

NOTICE TO THE PROPRIETORS AND SHARE- HOLDERS OF MINES, SMELTING-WORKS, &c.

Messrs. MITCHELL and FIELD beg to inform the PUBLIC, that they have REMOVED from No. 5 A to No. 23, HAWLEY-ROAD, KENTISH TOWN, where they have erected a spacious LABORATORY, fitted expressly for the performance of all OPERATIONS CONNECTED WITH MINING.—Practical instruction to gentlemen in Assaying, Mineral Analysis, and Manufacturing Chemistry in general.

Assays and Analyses conducted as usual. 28

All communications to be addressed to Messrs. Mitchell and Field, assayers, No. 23, Hawley-road, Kentish Town.

THE PATENT SAFETY FUSE, FOR BLASTING ROCKS IN MINES, QUARRIES, AND FOR SUBMARINE OPERATIONS.—This article affords the SAFEST, CHEAPEST, and most EXPEDITIOUS MODE of effecting this very hazardous operation. From many testimonies to its usefulness with which the manufacturers have been favoured from every part of the kingdom, they select the following letter, recently received from John Taylor, Esq., F.R.S., &c.:—"I am very glad to hear that my recommendations have been of any service to you; they have been given from a thorough conviction of the great usefulness of the Safety Fuse; and I am quite willing that you should employ my name as evidence of this."

Manufactured and sold by the Patentees, BICKFORD, SMITH, and DAVEY, Camborne, Cornwall. 29

PATENT GALVANISED IRON COMPANY.—At a Meeting of the proprietors of this company, held at the offices, 3, Mansion-house-place, London, on Tuesday, the 31st March, 1846, the following resolutions were adopted:—

1. Resolved,—That the report of the directors, and the accounts now submitted, be received and entered on the minutes.

2. Resolved,—That this meeting, deeply impressed with the great importance of complete railway communication between the company's works in Wales, the manufacturing districts, and the ports of the Bristol Channel, confirms and approves of the subscription by the directors, on behalf of the company, for 1000 shares in the Llynvi Valley and South Wales Junction Railway, appoints the directors trustees to hold the said shares on behalf of the company; and authorises them to do all necessary acts in pursuance of the engagements into which they have entered in respect of the same.

3. Resolved,—That a dividend, at and after the rate of 8 per cent. per annum, free of income tax, be declared for the half-year, ending 31st Dec., 1845, on all shares entitled to the same, and that the same be made payable on and after the 30th April next.

4. Resolved,—That John Field, jun., Esq., be re-elected a director of this company.

5. Resolved,—That Wm. Malins, Esq., be re-elected a director of this company.

6. Resolved,—That the Rev. Thos. G. Hall be re-elected an auditor of this company.

7. Resolved,—That D. R. M'Nab, Esq., be re-elected an auditor of this company. 30

8. Resolved,—That the best thanks of the meeting be given to the chairman, directors, and managers, for the ability with which they have conducted the affairs of this company to the present time.

9. Resolved,—That the thanks of this meeting be given to the Rev. Thos. G. Hall and D. R. M'Nab, Esq., for their services as auditors of this company.

The Deed of Settlement is completed, and would have been laid before the meeting for execution, but has been detained by the Registrar of Joint-Stock Companies; it will, however, it is confidently expected, be ready for execution previous to the payment of the dividend on the 30th proximo. S. VINCENT, Secretary.

3, Mansion-house-place, London, March 31, 1846.

NORTH WALES MINERAL RAILWAY.—THIRD CALL —TWO POUNDS per share on the £10 shares of the company—making (with the deposit of £1) £5 per share.—The directors of the North Wales Mineral Railway Company having passed a resolution, making a CALL on the proprietors of TWO POUNDS per share on the £10 shares held by them respectively, the proprietors of such shares are hereby required to PAY the same, on or before Thursday, the 30th inst., to one of the under-mentioned bankers.—Interest, at the rate of £5 per cent. per annum, will be charged on all calls remaining unpaid at the date above-mentioned. Interest, at the rate of £5 per cent. per annum, will be allowed on all calls paid in advance, pursuant to the Act of Parliament. By order,

Chester, April 6, 1846. ROBERT ROY, Secretary.

BANKERS.
Messrs. Dixons and Wardell, Chester
The Borough Bank, Liverpool
Messrs. Jones Loyd and Co., London
Messrs. William Jones Loyd and Co., Manchester
The National Bank of Scotland, Edinburgh
The Caledonian Bank, Inverness. 31

SHREWSBURY, OSWESTRY, and CHESTER JUNCTION RAILWAY.—Notice is hereby given, that the HALF-YEARLY ORDINARY MEETING of this company will be HELD at the company's offices, Foregate-street, in the city of Chester, on Thursday, the 30th day of April inst., at One o'clock in the afternoon.—Dated this 9th day of April, 1846. WM. ORMSBY GORE, Chairman.
Chester. ROBERT ROY, Secretary. 32

P.S.—The books for registration of transfers will be closed from the 20th inst. to 1st May.

CALEDONIAN RAILWAY.—At an Extraordinary General Meeting of the shareholders, held in the Royal Hotel, Edinburgh, on Thursday, the 9th day of April, 1846, at One o'clock P.M.,

J. J. HOPE JOHNSTONE, Esq., M.P. (chairman of the company), in the chair.

The secretary read the notice convening the meeting, and stating its purpose, and produced copies of the newspapers in which it had been advertised, in conformity with the Standing Orders of Parliament.

The chairman stated, that the only business of this meeting, as mentioned in the advertisement, being the consideration and approval of the Bills brought into Parliament, for authorising the different schemes which were sanctioned by the general meeting, held on the 5th November last, when their objects were fully explained. He had to propose that these Bills should now be laid before the meeting.

The chairman then moved the following resolution:—"That the Bills submitted to the meeting be approved of." This was seconded by Alex. Hastie, Esq., and carried unanimously. (Signed) J. J. HOPE JOHNSTONE, Chairman.

At Two o'clock the meeting resolved itself into another Extraordinary General Meeting, convened by advertisement, for the purpose of considering and approving of the agreements proposed to be entered into with the Glasgow, Paisley, and Greenock Railway Company, and the Glasgow, Barrhead, and Neilston Direct Railway Company. 33

The secretary having read the notice of the meeting,

The chairman entered into a full explanation of the position and advantages of the two railways proposed to be amalgamated with, and of the importance of securing their connection with, the Caledonian Railway. He then called upon the secretary to read the agreements which had been entered into—contingent on the approval of the meeting—and the secretary read the same.

The chairman then moved the following resolution:—"That the agreement with the Glasgow, Paisley, and Greenock Railway Company be approved of,"—which was seconded by Colonel Macdonald, and carried unanimously.

The chairman next moved—"That the agreement with the Glasgow, Barrhead, and Neilston Direct Railway Company be approved of,"—which was seconded by Charles M. Barstow, Esq., and carried unanimously.

The chairman having left the chair, the thanks of the meeting were given to him by acclamation. (Signed) J. J. HOPE JOHNSTONE, Chairman.

TO ENGINEERS, RAILWAY CONTRACTORS, MINING AGENTS, IRONMASTERS, AND OTHERS REQUIRING FINE GREASE for MACHINERY and AXLES of every description.—JOSEPH PERCIVAL'S IMPROVED ANTI-FRICTION GREASE is—after trials on machinery and axles of every kind where constant friction is kept up—admitted to be the most useful, economical, and best preparation of the kind ever offered to the public. 34

References to scientific and practical men can be given, and testimonials shown of its great excellence.—Samples forwarded on application at the manufactory, Green-street, Wellington-street, Blackfriars-road, London.

Transactions of Scientific Bodies

MEETINGS DURING THE ENSUING WEEK.

Society.	Address.	Day.	Hour.
Statistical	12, St. James's-square	Monday	3 P.M.
British Architects	16, Grosvenor-street	Monday	8 P.M.
Chemical	Society of Arts, Adelphi	Monday	8 P.M.
Medical	Bolt-court, Fleet-street	Monday	8 P.M.
Linnæan	Soho-square	Tuesday	8 P.M.
Horticultural	21, Regent-street	Tuesday	3 P.M.
Civil Engineers	25, Great George-street	Tuesday	8 P.M.
Geological	Somerset-house	Wednesday	8½ P.M.
Pharmaceutical	17, Bloomsbury-square	Wednesday	9 P.M.
Syro-Egyptian	71, Mortimer-st. Cav.-sq.	Thursday	8 P.M.
Royal	Somerset-house	Thursday	8½ P.M.
Antiquaries	Somerset-house	Thursday	8 P.M.
Royal Soc. of Literature	4, St. Martin's-lane	Thursday	3 P.M.
Royal Institution	Albemarle-street	Friday	8 P.M.
Philological	12, St. James's-square	Friday	8 P.M.
Asiatic	14, Grafton-street	Saturday	2 P.M.
Royal Botanical	Regent's-park	Saturday	4 P.M.
Westminster Medical	32, Sackville-street	Saturday	8 P.M.

SOCIETY OF ARTS.

APRIL 15.—THOMAS WEBSTER, Esq., M.A. (Vice-President), in the chair.

The first communication was on Mr. Rand's inventions for the manufacture of flexible metal vessels, for preserving paint and other matters, by W. Carpmael, Esq. Mr. Carpmael stated, that Mr. Rand, who is an artist, had, from the inconvenience and waste of colour, which takes place when it is put up in the bladders ordinarily used for that purpose, been led to endeavour to find a substitute, and the use of metallic vessels suggested itself to his mind. After many experiments, he succeeded in forming them of so thin a body of metal, that they are capable of being collapsed, so as to shut out all air. The tubes are made of block tin, the 150th part of an inch in thickness, and have, at their upper end, a nozel and screw-cap, and are closed at the bottom, by being folded over once or twice with a pair of pincers, so as to exclude all air. As the colour or other matter which they contain, is pressed out, the tubes are collapsed, and thus the upper part of the tube always remains full. Each tube has to go through the following process of manufacture:—A small piece of block tin is put into a die, upon which a punch worked by a fly-wheel press descends, and forces the metal up, of the required thickness, between the surfaces of the die and the punch—thus, by a single blow, the body of the tube is formed. It is then removed to a second press, by which the screw on the neck of the tube is formed; and, by a second blow in the same press, the maker's name is stamped upon it. The cap is formed, in a similar manner, by a third machine. The tube, when struck, is placed in a lathe, and cut the required length—thus a perfectly air-tight bottle is formed without seam in a few seconds. Mr. Wright exhibited a number of the tubes, which were beautifully ornamented—some of them being covered with richly embossed velvet, and other materials, and filled with choice perfumes; and he presented one of those bottles to every lady present. He also stated, that he had exported to various parts of the world essence of anchovies, prepared mustard, cold creams, volatiles, chemical preparations; it is also intended to export and import butter, preserved meats, and other substances in cases of this description.

The second communication was by Mr. Banks, on the cotton produced in Honduras and Yucatan, and the practicability of introducing free labour cotton from Africa and other countries into the British market. The objects of Mr. Banks's communication, was to point out the importance of our cotton manufactures—the successful competition of white and grey fabrics with those of Britain, in foreign markets—the great production of raw materials by slave labour in the States—the general inferiority of the cotton imported from India—the practicability of obtaining larger supplies by free labour from other quarters within our reach—the improvement of the staple, and, consequently, of the fabric—and the opening of a new market with Africa, and elsewhere. In consequence of the length of the first communication, there was not sufficient time to read the whole of the paper; it is, therefore, to be resumed at the next meeting (Wednesday, the 22d inst.)

James Badcock, engineer, the inventor of a machine for oiling machinery, who had fallen into pecuniary embarrassments, in consequence of the time and money expended on his invention, for which he had not the means to take out a patent, committed suicide on Saturday last.

CASE OF A BAD LEG, OF SIXTEEN YEARS' STANDING, CURED BY HOLLOWAY'S OINTMENT AND PILLS.—Copy of a letter from Mr. Frederick Wright, chemist, 32, Sidewell-street, Exeter:—"To Professor Holloway,—Sir,—I have the pleasure to inform you, that the demand for your pills and ointment is rapidly increasing. Several remarkable and wonderful cases of cure, by their means, have lately come to my notice. One in particular: an old gentleman of this city, who had an ulcerated leg for 16 years, and had spent hundreds of pounds without obtaining relief, but was afterwards perfectly cured by the use of Holloway's ointment and pills."—Sold by all dealers in medicine, and at Prof. Holloway's establishment, 244, Strand, London.

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At home for consultation daily, from nine till two, and from five till eight; and all letters immediately replied to, if containing the fee of £1, for advice, &c.—3, Bedford-street, Bedford-square, London.

Mining Correspondence.

ENGLISH MINES.

BARRISTOWN.—April 10.—The lode in the 18 fm. level end, west of flat-rod shaft, is about 2 ft. wide, producing between 2 and 3 tons per fm.; in the eastern end, at this level, the lode is 18 in. wide, producing between 2 and 3 tons per fm.; the pitches, at this level, continue to look well, rather improving than otherwise; the lode in the winze, sinking under the 12 fm. level, west of flat-rod shaft, is 18 in. wide, producing 2½ tons per fm.; in the adit end, on middle lode, the lode is poor, composed of gossan, with occasional stones of ore. Nangles' shaft sinking is not on the lode; about 2 fms. deeper will intersect it at a depth of 9 fms. from surface.—T. ANGOVE.

BEDFORD UNITED.—April 14.—At Wheal Marquis, the lode in the 80 fm. level east is 2 ft. wide, composed of spar and mundic, with stones of copper ore in places. In the 70 fm. level east we have cut a branch, about 6 in. wide; this we do not think to be the main lode—we, therefore, intend driving a little further north; the lode in the stopes, in the bottom of this level, is 2 ft. wide, and worth 15*l.* per fm. There has been no lode taken down in the 58 fm. level east. At Ding Dong, there has been no lode taken down in the 24 fm. level west. At Wheal Tavistock, the lode in Phillips's engine-shaft is 2½ ft. wide, producing some good saving work—a very kindly lode. The lode in the 35 fm. level east is small; and west about 2 ft. wide, composed of spar, mundic, and ore. The lode in the south engine-shaft is 5 ft. wide, composed of gossan and iron, producing some good stones of ore.—JAMES PHILLIPS.

CALLINGTON.—April 13.—Johnson's engine-shaft men have been engaged cutting ground for fixing a plunger-lift at the 112 fm. level; we now find it necessary to remove them in order to secure some ground in the said shaft from the 70 to the 80 fm. levels, which is getting weak. In the 100 fm. level, driving south, the lode continues very promising; the back will set at 8s. in the 1*l.* on the value of the lead; in the north end, we are also opening good tribute ground. In the 90 fm. level south the lode is worth 15*l.* per fm.; the north end is driving through tribute ground. At the north mine, in the 90 fm. level, both north and south, we are opening tribute ground. In the 80 fm. level the lode is 10 in. big, composed of carbonate of iron and spar, intermixed with silver-lead ores. In the 70 fm. level, driving north, we are opening ground that will set at 7s. in the 1*l.*; in the south end the lode is producing silver-lead ores.—J. T. PHILLIPS.

CARADON UNITED.—Having, at your request, minutely inspected this mine, I beg to hand you the following report:—Assisted by Capt. Penrose, I carefully surveyed the sett, and took particular notice of the different kind of strata which abounds in and about this mine: the north part of the sett is in granite, and this appears to extend east and west of this mine for a considerable distance. Many of the rich mines in this district have proved exceedingly productive in the granite, and particularly so near the junction of the clay-slate formation. The engine-shaft, being so well situated for intersecting the lodes at the different levels, has been sunk 24 fms. below the surface, partly in killas and partly in granite; in many parts of the shaft small veins, containing copper pyrites, has been observed, dropping towards the lodes; these are certainly favourable indications, and, in connection with the cross-course that run through the eastern part of the sett, there is every reason to expect that these lodes will prove productive in depth. The granite in the shaft contains but very little mica, and, in some parts of the shaft, there is copper pyrites disseminated throughout the mass, with chlorite and fluor spar; west of the Torr sett, in the Penhall land, there is a caunter lode 9 ft. wide, running about 25° south of east; from 16 to 20 fms. south of this, it appears that there is another lode running parallel with the former—each of these lodes, where they have been opened on, appears to be congenial for copper ore—they contain iron pyrites, gossan, quartz, chlorite, and flookan. There are six parallel lodes south of the engine-shaft in the Torr sett—consequently, these lodes will intersect the caunter lode before alluded to in the Penhall sett; south of this, there has been two lodes opened on, and, from the direction of some of the lodes in South Caradon Mine, they must certainly run into the south part of this sett. The deep adit now driving, and which, in my opinion, will certainly prove available to the working of the mine in many respects, must intersect these promising lodes, which have been seen near the surface, and in some parts will leave backs of 35 fms. There has been eight or nine veins already intersected in driving the adit level, but not any of them so promising as the north lodes that have been opened on. By way of conclusion, I must say, that what has already been done, relative to the working of the mine, is very proper, and certainly there is great credit due to the agent for the judicious manner in which he has conducted the workings of the mine.—JAMES HOCKINGS.

CONDURROW.—Particulars of account-meeting, held on the mine, 7th inst.:

To labour cost for February and March	£333	17	4
Merchants' bills	259	10	3
Dues	5	8	3
Balance due to purser end of February	1936	2	9—2534 18 7
By call made 4th Feb., of 10*l.* per 1-128th share	£1280	0	0
Ores sold 5th February	113	5	8—1393 5 8
Balance due to purser end of March	1141	12	11
Total	£2534	18	7

Manager and purser, 8*l.* 8s.; captain, 8*l.*; Mr. J. Vivian, 5*l.* 5s.—per month.

The Landower lode continues most productive and promising.

CONSOLIDATED TRETOIL.—The lode in Henwood's shaft, sinking under the 70 fm. level is 15 in. wide, producing some good stones of ore. In the 70 fm. level west, the lode is 15 in. wide, and opening tribute ground. The rise in the back of the 70 east is holed, and a pitch set there at 7s. in the 1*l.* In the 70 fm. level east, the lode is 1 ft. wide, saving work. In the 60 fm. level east of Williams's shaft, the lode is 1 ft. wide, producing but a small quantity of ore. We have commenced driving east at the 40, on Tregillas's lode; which is much as last reported. We have also set the 50 and 60 fm. levels to drive east.

EAST TAMAR CONSOLS.—April 13.—At Whitson, I have put the shaftmen to drive the 46 fm. level south, as I should wish to hole to the old workings made in the bottom of the 36 fm. level, before we commence sinking the shaft—at this level the lode north and south is improving. In the 36 fm. level north the lode is 18 in. wide, worth 12*l.* per fm.; at the south shaft the pitches are looking well. At Furzehill, the stopes in the 36 fm. level south the lode is 18 in. wide, worth 15*l.* per fm. The pitches in general are looking very well, and we are getting on in our dressing department as fast as possible.—B. ROBINS.

GREAT WHEAL MARTHA.—April 12.—The engine at the old mine is gradually draining the water in the shaft; should no other accident occur with the pit work, it will be soon pumped out, when we shall make another attempt to drive the 90 fm. level east. The lode in the 60 fm. level east has not been taken down since our last report. At the new mine, the 20 fm. level is being extended east through the killas contiguous to the hanging wall of the lode, which is very favourable for driving; the lode in the western end is 6 ft. wide, containing much mundic and stones of copper ore. The stopes in the back of this level are opening favourably, and are producing some good work. The lode in the 10 fm. level is 7 ft. wide, containing copper and mundic throughout—a very promising end. Although the pitch in the back of this level is turning out tolerably well, the lode is nevertheless more compact; it cannot, therefore, be explored with that dispatch which was manifested in the first month of our stoping. The steam-engine will be set at work on Wednesday next, at which time we shall immediately resume sinking the new-engine shaft.—JOHN PRINCE. THOMAS PENALUNA.

GUNNIS LAKE.—April 14.—At Chilsworthy, Bailey's engine-shaft is 6 fms. under the adit level, the lode in which is 2½ ft. wide, composed of gossan and spar, with spots of copper ore in places—a very promising lode indeed. In the past week there has been a few feet driven on the course of the lode (in the 10 fm. level western shaft), the which is about 1 ft. wide in places, producing good work for tin, altogether kindly. The men are now again driving cross-cut work, to ascertain if there is any part of the lode standing, as we are led to believe there is, from the quantity of strong mineralised water issuing from the present end. We have done but little in shoding since my last; the lode thrown by the cross-course has been cut and proved to be small, although kindly.—W. RICHARDS.

HANSON.—April 13.—At Treza, our sumpmen are still rising from the 20 fm. level, against sump whim shaft, and also sinking the same under 12 fm. level, hoping to hole said shaft in a few days; in said rise and shaft the lode is 2 ft. wide, but little ore. In the 12 fm. level, east on Stainsby's lode, the lode is 3 ft. wide, with some ore; at the same lode west, we have cut the lode south, and are driving west on it—lode is 18 in. wide, composed chiefly of mundic. At Hanson, we have not as yet cut the lode at the 64 fm. level. In the 54 fm. level, west of engine-shaft, on Ribb lode, the lode is 20 in. wide, chiefly mundic.—Z. WILLIAMS.

HAWKMOOR.—April 14.—There has been no lode taken down in the south engine-shaft in the past week. The lode in the 15 fm. level, east of Hitchins's engine-shaft is 1 ft. 6 in. wide, at present unproductive.—P. RICHARDS.

HOLMBUSH.—April 14.—The shaftmen are getting on very satisfactorily with their work in Hitchins's shaft, having within the last week fixed the lift to the bottom of the 120 fm. level, and have disengaged and done away with the diagonal lift in the sump winze. In the 110 fm. level, west of Hitchins's shaft, the lode is 20 in. wide, and worth 24*l.* per fm. In the 100 fm. level, west of ditto, on the north part, the lode is 20 in. wide, and worth 28*l.* per fm.; in the 100 fm. level west, on the south part, the lode is 20 in. wide, producing stones of copper ore; at this level, driving south, the lead lode is 5 ft. wide, composed of prian, spar, and flookan, with spots of lead; in the rise, over this level, the lode is 3 ft. wide, composed of spar and flookan, with small strings of lead. We are expecting daily to communicate this rise to the 90 fm. level. In driving south, 15 ft. from the flap-jack lode (on that part of the lode formerly driven west on, called flap-jack lode), we have intersected a lode 2½ ft. wide, composed of spar, mundic, and spots of rich yellow copper ore, underlying north 2 ft. in a fathom, and which, we believe, is the main part of the lode. We have set the men to drive west on it. The lode in the winze, sinking below the 90 fm. level, on the lead lode, is 3 ft. wide, composed of spar, flookan, and spots of lead; in driving the 90 fm. level, south of the slide, we have intersected the lode, which is 12 in. wide, and worth 10*l.* per fm. In the 80 and 62 fm. levels, west of Hitchins's shaft, the ground is favourable for driving.—WILLIAM LEAN.

LANIVET CONSOLS.—In the 70 fm. level east of Elizabeth shaft, the leader part of the lode is about 2 ft. wide, composed of flookan, soft spar, and ore—this is on the south part; we are cutting through the lode in this place to see the north part of it, where the level above we had ore. The lode in the 70 east is large; we are driving on its south part, which is at present poor. The lode in the winze sinking below the 60 fm. level, to communicate to the 70 east, is much as last reported, we are sinking this as fast as possible for ventilation, and also to cut our tribute ground. We have suspended the 60 fm. level east, and have put the men in the winze until it be holed, we shall afterwards resume driving this level; the lode in it at present is about 18 in. wide, producing a little ore.

SILVER VALLEY.—April 13.—I beg to say, that the tin lode in the 30 fm. level west is 3 ft. wide, producing saving work; the lode in the eastern level is small and unproductive. The lode in the 20 fm. level west is about 2 ft. wide, composed of capel, peach, spar, and mundic—very kindly. At the south shaft we are clearing and securing the shaft below the 30 fm. level—this level is cleared east to the end in the silver lode, which is 23 fms. 2 ft. from the shaft; the lode at this point is very small. We have in the past week been clearing through the tributers' workings in the back to get at the lode, and have found some stones of silver with the flookan that run down from the lode. The 20 fm. level east is clear to the end, and is 31 fms. from the shaft; the lode here is small, composed chiefly of flookan. The men are now clearing the western level. The silver lode in the shaft at Wheal Sisters is without alteration; it is about 2 ft. wide—flookan, spar, and gossan.—S. RICHARDS.

TAMAR SILVER-LEAD.—April 13.—The sumpmen are engaged altering the pitwork, which I hope will be completed by the middle of this week. In the 145 fm. level the lode is 1 ft. wide, composed of capel and mundic. In the 135 fm. level the lode is 18 in. wide, work of a coarse quality; at the same level, north of the shaft, the lode is 9 in. wide, producing work of a promising character. In the 125 fm. level the lode is 2 ft. wide, 1 ft. of which is saving work. In the 115 fm. level the lode is 9 in. wide, composed of flookan, with good stones of ore. In the 105 fm. level the lode is still about 6 in. wide, composed of can, with a small quantity of ore. In the 95 fm. level the lode is 9 in. wide, unproductive. We sampled on Friday, the 3d inst., 90 tons 20 cwts. 2 qrs. of rich silver-lead ore. At North Tamar, in the rise in the back of the 60 fm. level, the lode is 1 ft. wide, good work.—JAMES SPRAGUE.

TRELEIGH CONSOLS.—April 11.—In Christoe shaft, below the 90, in the country—this will be sunk to the 100 fm. level by the end of next week; in the 90, east of ditto, the lode is about 2½ ft. wide, not so good as last week—now worth about 20*l.* per fm.; in the 90, west of ditto, the lode is small, no mineral. In the 80 cross-cut south, we have cut several branches, but as yet no lode. In Garden's shaft, below the 80, the lode is from 4 to 5 ft. wide, worth as much as reported last week (35*l.*); in the 80, west of Goodfortune, the lode is 2 ft. wide, with stones of ore; not much done this week, water in. In the 70, west of ditto, the lode is 4 ft. wide, producing stones of ore, and kindly. In the 60, west of Symons's, the lode is 3 ft. wide, promising, with stones of ore. The 50 cross-cut north driving in the country; in the 50, west of ditto, the lode is 18 in. wide, worth 6*l.* per fm.; this is more kindly than it has been; in the rise, above the 20, the lode is small, no mineral; the winze, below the adit, will be holed in a day or two to the above rise; the shaft, west on Goodfortune lode, or rather to cut the south lode, now sinking perpendicular in the country.—W. SYMONS.

WHEAL CONCORD MINE.—April 15.—The steam-engine lately erected on this mine was put to work yesterday, and went off in very good style, under the superintendence of Mr. Sims, the engineer, to the great satisfaction of many of the country shareholders, who were present. The castings, which have been made by Mr. Mare of Plymouth, are very good, and the engine is of very excellent workmanship. The engine-shaft is sunk 50 fms.; and at the 7, 12, 20, 28, and 38 fms., short levels have been driven,—from whence large quantities of ore were taken up at the last workings, and were then left in a very prosperous state. The engine will very soon drain all these levels, when some fine courses of lead will be opened upon: the water is already forked to the twelve fathom level, and some fine stones of lead have been raised from the seven fathom level, some of which have been sent to the office of the secretary, James Crofts, Esq., 4, King-street, Cheapside, London. It is expected that the 20, 28, and 38 fms. levels, will produce large quantities of lead ore. There are two lodes discovered south of the lode we are working on, both of which have been opened in the adjoining mine (Wheal Grace), and producing ores. Three lodes are also discovered north, of a highly promising character.—B. ROBINS.

WHEAL SETON.—At a meeting of adventurers, held at the account-house, on Tuesday, the 14th inst., the accounts having been seen and examined, resolved—That the same be allowed—the balance of 997*l.* 1s. 11d. being due from the purser; that a dividend of 15*l.* per 99th share be made and paid by the purser; that the next meeting of adventurers be held at the account-house, on Tuesday, the 9th day of June next.

To amount of costs for January, 1846	£ 691	0	7	
" " February	1275	17	9—£1966	18 4
February 5, by account of copper ore sold	4219	15	4	
Less 1-15th lord's dues	281	6	4—	3938 9 1
				£1971 10 9
Balance due from purser to end of December				510 11 2
				£2482 1 11
Dividend of 15*l.* per 99th share				1485 0 0
Balance in hand				£ 997 1 11

Report.—Bull's shaft is in course of sinking below the 80 fm. level by eight men and four boys, down from 5 to 6 fms.; the sumpmen have been employed the last month in taking down the lode, which will average in size from 3 to 4 ft.—the last 4 fms. sinking, and is worth 30*l.* per fm.; the 80 cross-cut north is extended 15 fms. from the last-mentioned shaft; ground hard for driving. We have about 10 fms. further to drive to intersect the north lode, which will take four months to accomplish; 4 fms. behind this end, we are driving west on one part of the south caunter lode, which is 1 ft. wide, but unproductive. In the 70 fm., west on ditto, the lode is small and poor. In the 60 fm., west on ditto, the lode is 2 ft. wide, worth 12*l.* per fm. In the 50, west on ditto, the lode is 4 ft. wide, worth 25*l.* per fm.; the winze, sinking below this level, is down 3 fms., lode 6 ft. wide, worth 25*l.* per fm.; the stopes, in the back of this level, is worth 40*l.* per fm. In the 40 fm. level, west on ditto, the lode is disordered by a slide; but, we doubt not, when free from that influence, will prove productive. In the 70 fm. level, west on the north lode, the lode is 9 ft. wide, worth 120*l.* per fm. In the 60 fm. level, west on ditto, the lode is 9 ft. wide, worth 120*l.* per fm.; the winze, sinking below this level, the lode is 12 ft. wide, worth 200*l.* per fm.; the lode in the rise, in the back of this level, is only worth 50*l.* per fm., being so near the cross-course; the winze, sinking below the 50 fm. level, over this place, the lode is not taken down since we commenced sinking; there are 3 fms. further to rise and sink to effect a communication to the last-mentioned rise, which we expect will be accomplished by the end of the present month. In the 40 fm. level, west on ditto, the lode is 2 ft. wide, unproductive. Tilley's shaft is in course of sinking, below the deep adit, by 12 men—down 14 fms., ground rather hard for sinking.—P. RABEY. STEPHEN LEAN.

WHEAL MEXICO (near Callington).—April 13.—At the 20 fm. level we are driving north on the cross-course, and expect to find the lode in about a week. There is also a lode or branch to the south, which is not far distant, as it would appear, by the quantity of water coming from that direction; but since the lode in the adit underlies south, and as the dip, or underlie, is changed at the 20, it is difficult to estimate the precise amount of heave. We are erecting a small water-wheel, for the purpose of proving the copper lode 5 or 10 fms. below the adit, where we anticipate a great improvement, if not an actual course of copper ore; the ground still continues favourable for sinking and driving, the killas being soft, and of a light blue colour. In the deep adit, the tributers have discovered a small arch of ground, from which they have taken a few bags of silver ores, and some of the stones are very rich in native silver. This part of the mine formerly produced an immense quantity of silver ores of the richest description, and would certainly warrant more extensive operations.—W. KNOTT.

WHEAL TRELAWNEY.—I am happy to inform you that our lode still continues good in the 32 fm. level; in the south end it is 4 ft. wide, worth from 25*l.* to 30*l.* per fm.; in the same level north it is 4 ft. wide, and worth 20*l.* per fm. The lode in the 22 fm. level north is 3½ ft. wide, worth 25*l.* per fm. The lode in the 12 fm level north is 2 ft. wide, worth 16*l.* per fm. The men employed in stoping the backs of both the levels are breaking fair quantities of lead. On the whole, our mine never looked near so well as she does at the present time. We have between 60 and 70 tons of lead dressed towards the next sampling.—PETER CLYMO, jun.

WHEAL WALTER.—April 16.—I have to report to you, since my last, that we have now completed the adit level 44 fms., and yesterday commenced the sinking of an adit shaft in the intermediate space between the present adit end and the great south lode. This piece of ground is 54 fms. in length; therefore, if we can succeed in sinking the shaft, and driving therefrom, it may be calculated that the adit will be completed to this lode in three months, and to the point of the Farm-yard lode in another three months. Agreeably to my last, a shaft has been sunk 5 fms. deep, at which point we intersected the last-mentioned lode, and I am happy to inform you, that its character is very permanent and firm, about 3½ ft. wide, composed of strong gossan, spar, flookan, and mundic, with strong indications of copper, with an underlay from 4 to 5 ft. per fm. I have put to sink an adit shaft in the wood at the north of the great south lode, in order to ascertain the practicability of forcing on the adit with the greatest possible means; if not considerably impeded by water, we shall complete the adit level in a month or more less than stated in the foregoing.—JONATHAN DAVEY.

WEST WHEAL JEWEL.—April 13.—We have intersected a branch in the 115 cross-cut in the past week 6 in. wide, promising. In the 100 fm. level east, on Wheal Jewel lode, the lode is worth 7*l.* per fm.; in the 100 fm. level, west on ditto, the lode is worth 5*l.* per fathom. In the 70 fathom level, west on ditto, the lode is 1 ft. wide, unproductive. In the 12 fm. level, east on ditto, the lode is 15 in. wide, composed of prian, spar, and gossan. The ground in the 85 cross-cut south, on Williams's cross-course, is very favourable for driving; the ground also in the 85 cross-cut south, from the new south lode, is favourable. In the 12 fm. level east, on Tolcarne tin lode, the lode is worth 5*l.* per fm.; in the 12 fm. level, west on ditto, the lode is worth 6*l.* per fm. No alteration in the north mine in the past week.—S. Lean. R. Johns.

FOREIGN MINES.

ANGLO-MEXICAN MINES.—*Guanaxuato, Feb.* 23.—Since my last, I have visited San Nicolas del Monte; I am sorry that the inspection does not enable me to speak favourably of the mine, but the fact is, in its present state it is worn out, and the operations are carried on in a mere shell, or, to use the mining terms of England, there is no new ground—the workings being all in old pillars, scarcely any of them of sufficient magnitude to warrant expensive explorations; nevertheless, the indications in San Cenobio and San Pedro disinclined me to suspend the operations there. It is exceedingly difficult to advise under the existing circumstances of the mine; but I may, with propriety, recommend that we continue to work as long as we are not losing money, for sometimes very rich hilos are suddenly met with, which produce ores that sell at high prices, and we may, in this manner, partially reimburse ourselves for previous loss. As to carrying on the Varones level now, there is rather too much to be done, and too long a time to wait for great results; but I have no doubt, that at a future day, some one will obtain a rich harvest there, when the work is vigorously advanced. Of course, it remains as I found it, for I could not take upon myself the responsibility of recommencing a work, requiring both time and money, in the present depressed state of the company. As long as we carry on operations in Asuncion, I will continue to visit it from time to time, and report progress thereon. I will now state the monthly results:—

	Memoria.	Sale.	Profit.
Jan. 24	$687 2 3	$2240 7 0	$433 1 3
31	767 4 9	2404 3 0	434 4 9
Feb. 7	713 4 1	1693 0 0	132 7 10
14	683 0 9	1704 5 0	169 1 9
Showing profit on the four weeks of			$1169 7 7

Total number of cargas, 1280, at the average price of $6¼ per carga. This statement shows that the average price is better than that of last month; we had also a greater quantity of carga, but the memorias are still high.

Sirena.—The profit has not in this month amounted to the sum necessary to afford a participation to the company, so we get nothing but the rent.

Finance.—I inclose the usual document, which shows an asset of $78,929. —L. Brough.

BOLANOS MINES.—*San Clemente, Feb.* 17.—With reference to my last respects of the 17th ult., I have now to acknowledge receipt of your secretary's letter, December 1.

San Clemente, San Nicolas, and Malanoche Mines.—The produce has continued to decline in all its branches, the number of buscones has diminished every week, and the last of our reserves are now so much exhausted, that I expect every week will be the last they can be worked by obra. The result of our working on ore last week was 82 cargas, average ley 14 mcs. per monton. The west end of La Luz continues in irregular bunches of indifferent ore. The winze of La Luz is in total borrasca. The west end of Animas continued in the same worthless pintas, and has been abandoned. Since this end has been put on the map, it shows a different course from that of the Berguena lode, and is probably a different lode, and it may be worth continuing the cross-cut a little further to remove all uncertainty. The cross-cut of La Merced has cut the San Clemente lode in the same worthless bronzes, which we have always had in San Fernando level, and I have not judged it worth driving upon; I have preferred trying the lode cut previously, called La Merced, which gave stones of 3 and 7 mcs. on cutting through it; an end west has been opened upon it.

San Francisco de Paula Mine.—Our surface works have been continually interrupted by the bad weather, even the malacate at the General shaft has been prevented working, and the sinking of the shaft in consequence. The communication has, however, been made with the cross-cut of San Bonifacio, and as the lower cross-cut of the 125 vara level is also home, we have, since the last fortnight, been dividing the shaft at three ends, and it is to be hoped that it will be open to the lower level in six or seven weeks; but it will take six months before we can drain the lode now under water, and break the ores that are in sight. A saving of 20 underground carriers by day, and as many by night, has been already effected by the communication with San Bonifacio. The saving will be far greater when the communication is made with the 125 vara level, and we shall then, moreover, be able to commence sundry interesting discovery works, at present in abeyance. The produce of the mine during a fortnight amounted to 200 cargas weekly, principally from the workings of San Miguel; but since the last fortnight they have fallen off greatly, and we are hardly now raising 100 cargas.

Loreto Mine.—I have commenced a tutwork in this sett from the old workings discovered in San Francisco Mine; it is a cross-cut south through Rayas lode, and is a work of much interest.

Celestina Mine.—The incessant rains have been very injurious to our operations in this mine. The sinking of the shaft has been frequently interrupted, because the malacate could not work, and the building and inclosures on the surface have been quite suspended, so that we are yet unable to begin breaking the ore discovered in the lode of Majorazgo. The cross-cut from the adit level has been communicated with the shaft, and we are now blocking up the entrance to the mine by the adit, leaving only a channel for water, preparatory to our commencing to break the ores. The shaft is now 100 varas deep, and a cross-cut for the Celestina lode is commenced this week, which will be carried on till it cuts it. I should have preferred deferring this till it could have been done by the shaft itself at 40 or 50 varas greater depth, but the necessity of getting ore to assist my finances has compelled me to expedite the drainage of this lode and of the Majorazgo, that I may work upon them. The 21½ cargas of ore taken from this mine are very docile to the common process of reduction, which is very satisfactory, as it was at first feared it would be otherwise.

Extract from a letter from the company's agent at Tampico, dated Tampico, Feb. 23:—"We beg leave to inclose a bill of lading for $22,500, shipped to your address per Royal Mail steam-packet *Avon.*"—[The above-mentioned remittance has been received.]

Statement showing the General Result of the Mines and Haciendas for January:—

Mines.	Profit.	Loss.
San Clemente Mine		$1108 1 6
San Nicolas	$2 7 3	
Malanoche	—	832 6 1
San Rafael	—	5813 1 1
Veta Bella	—	659 1 3
Loreto	—	179 7 2
La Celestina	—	2008 7 1
Reide's negociation	—	1028 6 0
Santa Barbara Mine	56 4 0	—
Disputed ground	2778 5 3	—
Haciendas	425 3 4	—
	$3263 4 2	$11,630 6 6
Profit		3263 4 2
Deficiency		$8367 2 4

COPIAPO MINES.—*Copiapo, Nov.* 28.—In reporting to you the present state of the company's mines, operations, and produce, I have much pleasure in being able to inform you, that they continue to exhibit very encouraging prospects. The San Pedro Mine presents the most pleasing appearances at almost every point of operation; the vein in the 10 fm. level east is, in my estimation, one of the prettiest that I have seen for a long time—not that it is wider, or even as wide, as it has been in some of our other levels; but, judging from the quality of the ore, and the form and composition of the lode, I am almost certain that it will continue to yield good ore for several months. It is now 3 ft. wide, about 20 in. of which is ore of 35 per cent., and the remaining part is rich ore, combined principally with quartz and killas, so that, by working and jigging, we shall extract several tons per month of full 25 per cent. It has another favourable indication, having assumed nearly a vertical position, whereas it formerly had an underlay, or inclination, north of about 30°—and the nearer to a perpendicular descent that a vein has into the earth, the more productive and lasting it is generally found. In favour of this hypothesis, I could point out many instances, both in this country and England, that a more clear and practical example, than we have at our own mine in Chico, need not be sought after; for in almost every instance, where the vein has had any considerable underlay, it has been poor, and when it has assumed, or approached near to, a perpendicular direction, has generally become productive. In the shallow level west we have likewise a good vein, about 14 in. wide, of 30 per cent. ore; but very hard. On the north vein, we have had in the last month a pretty little bunch of ore, a foot and a half wide; but, at present, is not so good. The stopes are looking pretty well, especially in the back of the 24 fm. level, and, before they are finished, we have a good prospect to lay open better ones to work on. You must be aware, that, although in the various places above-named we are extracting rich ore, there are many other parts being wrought producing ore not of equal quality; but I have no doubt that the average of all the ore we are breaking in this mine now, and for the two months past, will exceed 20 per cent.

Pampa Larga Silver Mine.—Since my last report of this mine, we have communicated the 20 fm. level south to the old workings, and commenced the sinking of a winze below this level, in which we have a vein of ore 18 in. wide, about the same quality as that broken in driving the level—this, in my opinion, is very encouraging, as we have every reason to believe that this vein, below the 20 fm. level, has not been wrought on by the former owners. In driving the 20 fm. level north we have found occasional stones of ore, but, as yet, the vein has not formed itself into such a solid mass of ore as we could wish, and are daily expecting. In the last month we have not been able to drive more than 6 varas, the vein being 8 ft. wide and hard, all of which must be broken by blasting. We have stoped a little in the back of the 20 fm. level—the vein continues to look well, and the ore gaining northerly as it ascends. Five fms. below the 20 fm. level we have cut into the same vein that is producing the silver above, and found it about an equal width, producing stones of ore occasionally; we have commenced driving north in it, with a view of getting under the winze, to find the same shoot of ore that we have in sinking. In about a fortnight from this, we shall be able to drive south at the 25 fm. level also, where the vein has a most beautiful appearance. We are also driving a 15 fm. level north, to come in over the 20, where we expect, in about two months, to cut the same bunch of ore that is evidently gone up in the back of that level. A few days since we commenced taking away some of the old arches left by the former owners, from which I am in great hopes of extracting ore enough to pay all the expenses of clearing out all the old workings on this vein, and to bring every inviting point into a good and effective working. Produce of this mine, since the weight last reported, about 12 tons —net weight 280 quintals, nearly 12¾ tons sent for reduction.

Chico Copper Mines.—The prospects here continue much the same as when last reported on. The vein at the 20 fm. level, east of Harman's shaft, is still good, as is also the lode at the bottom level, east of the Victoria shaft. In the winze, sinking below the 30 fm. level, the vein is 2 ft. wide, 8 in. of which is ore of 30 per cent. I am in great hopes of this improving shortly, because the part that is not rich at present, has recently become thickly interspered with fine particles of rich ore. The old pitches present no material alteration; the quantity of ore taken from them is not large, but the quality is good. I think the cargo of the *Elizabeth Baynon,* is a fair sample of the average quality of the ore now being extracted from this, and of that in Cancha here. Produce at San Pedro for October, 78 tons; Chico, 42—total, 120 tons. —Sampson Water.

IMPERIAL BRAZILIAN MINE.—*Gongo Soco, Jan.* 23.—In the western part of the mine we are working away some old backs west of Pengilly's shaft, and opening some ground east of Bray's. We have driven a cross-cut north from Allcock's shaft, and risen both northward on a vein, which showed traces of gold southward; but, as we have found nothing worth while, we have given it up. We are still driving west from Lyons' cross-cut at the 27 fm. level on the south jacotinga; but, though we find particles of gold, it is very poor. Two rises, southward from the 27 fm. level, east of Avelines, have been extended to intersect the south jacotinga; but it is also unproductive—nevertheless, we purpose driving a little way on it. Our sink, in the eastern end of the 70 fm. level, from Vesey's, soon passed through the jacotinga, and has been stopped. We are now sinking below the same level, both east and west, of the shaft, and we shall continue both as long as it is practicable, and ultimately drive cross-cuts from one or both of them, whilst our supply of surface water enables us to drain them; when this begins to fail, we may still drive a little further west; but, if none of these trials succeed, we are unanimous in thinking this part of the mine may be finally abandoned. At Catta Preta, the pumps work well at Fitzpatrick's shaft, and the 20 fm. level is being extended towards the part reported to have been rich. We have made a wrought iron pump, which is now being fixed in Thomas's shaft, and I hope the sinking will be resumed during the present week; the winze has been sunk 10 fms., and we are now about to drive towards the shaft—the lode, though showing gold, is, I am sorry to say, still poor. *Feb.* 3.—I am sorry to say, the mine presents nothing new. Our labours in the deepest parts are prosecuted with the utmost vigour; but no discovery has yet rewarded our perseverance. At Catta Preta we have extended at the 20 fm. level from Fitzpatrick's shaft, and I hope we have overcome the difficulty we had experienced from a sandy bed; the lode yet seen is very poor, but we are yet distant from the locality of the reputed riches. The rapid disintegration of the rock on the contact of water, so impedes us at Thomas's shaft, that I fear we shall yet have to stop the perpendicular part of it, and sink on the lode. The winze has been sunk as far as it has been thought prudent to go at present, and we are driving on the lode towards Thomas's shaft about an 18 fm. level—the lode affords a tolerable sample of gold. As our water-wheel is of sufficient force to work the pumps in both shafts, and to move a few stamp heads, I have directed some to be fixed, which will enable us to give the lodes sufficient proof whilst we proceed.—W. J. Henwood.

Gold Workings.—From January 23 to February 2—nine days—12 lbs. 7 ozs. 3 dwts.; making a total from January 1—30 lbs. 2 ozs. 6 dwts.

NATIONAL BRAZILIAN MINE.—*Cocaes, Jan.* 23.—I have the pleasure of informing, you that our stopes still continue to look exceedingly well, and the stones very rich. The stopes are still being opened east and west for extending them in length; we have also continued opening them at north and south, but neither of the walls have yet been met with.—*Feb.* 3. We have experienced a great drawback in our mining operations by the crushing together of the Old Carnco shaft, which will take a week to repair; this forms a medium of ventilation to our stopes, and the hands have scarcely done anything towards opening. The stamps have been principally supplied by stone, thrown on one side many years back, as well as from that found near the entrance of the Bandeira level; this latter circumstance is most fortunate and encouraging, inasmuch, as it proves beyond doubt, that the formation is entire, and we have at the present moment enough ground discovered to place the whole of the force both here and at Cinaba to work. At the commencement of every new exploration, there are naturally a number of preparatory works, which consume much time, and we have had our share of them. Our mine is now in a most promising state, and the stone which has been broken in the last 10 days, has looked as well as any I have seen from these stopes.

ST. JOHN DEL REY MINE.—*Morro Velho, Feb.* 8.—Produce for January, 11,900 oits., equal to 114½ lbs. troy, from 2760·8 tons of ore equal to 4·31 oits. per ton. It appears that only 93·6 tons have been rejected, so that a considerable amelioration in the standard of the ores has taken place since last month; but whence it arises I know not, since the ores from all the workings have been stamped together. This variation must continually occur, so long as different parts of the lodes are worked on at different times. The dead works are being pushed forward with vigour; there are no fewer than 82 borers working down the East Cachoeira shaft without intermission, and the Bahu and Gamba shafts are kept constantly sinking by some 20 borers. When the Cachoeira shaft is sufficiently down, perhaps 8 or 10 borers will keep it down. Cost for January, rs. 27,825 $826, equal to 3072*l.* 9s.

PACHUCA MINES.—Feb. 26.—The San Miguel shaft, sinking in the Rejona pertenencia, is a promising work, and, although the vein has lately been disordered by a large vough, it still continues to preserve its usual regularity and width; the total depth is now 37½ varas from surface, and, at 50 varas, we propose to drive a cross-cut south to cut the other part of the vein. The lode in the Esperanza shaft, and in the 95 vara level, west of San Buenaventura, is much the same as described in former letters; the total of shaft from surface is 131 varas, and of the lift 134 varas west of shaft. In the Santa Clara district, we have lately been clearing up an old shaft, called San Pedro, sunk on a large quartz vein, which we find spotted with azogue ore. Expenditure in January (five weeks), $1212.

REAL DEL MONTE MINING COMPANY.—*Mineral del Monte, Feb.* 26. —I duly note what you say respecting the completion of the barrel establishment; and I beg to assure you, that I feel very anxious about this business—but you will have seen, by my letters of the 28th Dec. and 29th Jan., that we have been unavoidably delayed; the removal of Terreros engine to Acosta having become absolutely necessary, it became, at the same time, of the greatest importance to carry it into execution as speedily as possible; and, with this view, nearly all the artisans have been employed in making the necessary preparations. All the repairs of boilers, working gear, &c., belonging to Terreros engine, were completed, and the heaviest parts removed to Acosta on the 22d inst., and on the 24th following we commenced taking out the latter engine, and there is now a strong force employed about this work day and night; and it is calculated the whole will be finished, and the new engine completed, in rather less than five weeks. During this time the work at Sanchez will be in a great measure suspended; but I should observe, that, when it is again resumed, it will proceed very rapidly, as the principal timber work for the water-wheel, platform for the barrels, &c., are already prepared: the new zanja is also nearly complete, and the foundation for the wheel cleared out; there is also very little required to complete the new calcining furnaces, and nearly all the materials required for the works are paid for. I take due note of the agreement entered into with Mr. Spangenberg, for the proprietorship of the patent taken out in this country for his new process of reducing silver ores, and for introducing the same in this Mineral. Mr. Spangenberg arrived here on the 6th inst., and has since been occupied in preparing to make the trials—the first, on a small scale, has come out satisfactorily. Mr. S. feels confident that all the ores he has yet seen here can be advantageously reduced by the new method. By the next packet we shall be able to give you—I hope satisfactory, as well as interesting—information on this subject. By the reports herewith forwarded, you will be informed of all the essential particulars relating to the present state and prospects of the mines. On the Biscaina vein the most productive working is still that of San Enrique and San Pablo, below the San Juan level, which, for some months past, notwithstanding some hindrances, caused by the water, which had to be drawn by hand pumps, about 7 varas high, have been producing about 150 cargas of azogue and 40 of smelting ore per week—the average assay of the former being 16 to 18 mcs. per monton, and the latter about 15 mcs. a carga. The Santiago level has now reached to within about 25 varas of being in a line with San Pablo winze; the water in this place has lately increased, and a corresponding abatement is observable in the planes above; we hope, therefore, to see these workings dry very soon, which will enable us to increase the returns from the "fundiciones" considerably. In the Santiago end there has been lately found some very fine stones of ore, similar in appearance to the ore from San Enrique and San Pablo, and there is every reason to expect we shall soon find the lode in this place as good and as productive as above. We are still contemplating to carry out the plan of putting in flat-rods in the Santiago level, to be connected to the Dolores engine, in order to enable us to sink below—by which means we shall be enabled to increase the number of labores, and consequently the produce, for a considerable time to come. The workings below the Santiago level, about 30 varas west of the diagonal shaft, formerly full of water, are now nearly dry, having been drained by the approach of the Santa Teresa, or 216 vara level. In the planes referred to, we propose to employ 12 barreteros; the lode is large, composed principally of azogue, with spots and branches of smelting ore. I noted, in a former part of this letter, that the two engines at Acosta were suspended on the 24th inst., since which the water has risen very rapidly; the working on ore is, therefore, at present confined to the labores above the San Antonio, which, generally speaking, produce only ores of low ley—a greater part of which, containing from 8 to 10 mcs., will be put to the Rezago for the barrels; and, until the new engine is put to work, and the drainage effected below the Aviadero level, we cannot expect to increase the returns of this mine. At Sacramento the prospects are better than they have been for some time past; and, in both the San Antonio end, driving north, and Todos Santos winze, sinking below the same, the vein is composed of azogue ore, about one vara wide, containing from 12 to 14 mcs. per monton; besides this, there is a pretty deal assaying from 8 to 10 mcs., which will do hereafter for the barrels. This mine produced, in January, 310 cargas, which is a notable increase on that of former years. Although I just now stated that the produce from Acosta, for the next five or six weeks, will be confined to the low ley ores, I ought also to mention, that our hacienda returns are not likely to materially suffer in consequence, as we have, fortunately, a pretty good stock of ore on hand. In Jan. (five weeks) the expenditure was $3,626; new barrel machinery, $4904—making a total of $58,530; the returns for the same period being $58,694, leaves a profit of $164.—Remittance received, 2000*l.*

UNITED MEXICAN MINES.—*Guanaxuato, Feb.* 23.—*Mine of Rayas.*—A considerable improvement has been noticed since my last letter to the court, in the two points of research, San Mauro and Santa Cecilia, especially in the former, from whence a small quantity of rich ore, as well as of an ordinary class, was extracted last week, giving rise to improved and more encouraging prospects as to the future, and some expectation of this body of the vein finally becoming productive and constant in this mine—a circumstance hitherto unknown. The indications in Santa Cecilia are merely favourable, the advanced portion of the vein from whence ore may be realised to some extent not having yet been reached. The general produce of picked ores continues much the same, except in the last two weeks, but the sales, on joint account with buscones, have fallen off gradually, as shown by the following statement.—

4 wks. end.	Picked ores.	¼ amt. sales.	Outlay.	Excess of Outlay.
Jan. 17.—Cs.	2260 0	$ 9595 6 0	$ 15,534 1 2	$ 5938 3 2
Feb. 14.	„ 2271 0	6587 4 0	15,595 1 7	9007 5 7
	Cs. 11 0 Increase.	$3008 2 0 Decrease.	$61 0 5 Increase.	$3069 2 5 Increase.

and, unfortunately, there is no immediate prospect of any improvement therein, except by new discovery.—J. N. Shoolbred.

Note.—$15,000 have arrived by this packet.—J. Mather, Sec.: *April* 11.

MINING IN CORNWALL AND DEVON.—No. II.

Tincroft (Tin and Copper) Mines—are sitnated in the parish of Illogan, in the county of Cornwall—bounded on the east by the well known and profitable mines of Carn Brea and the East Pool Mine; on the west by Cooks' Kitchen and East Wheal Crofty Mines; on the north by the latter; there being several mines to the south in active prosecution. The limits are—east to west (about) 336 fms., north to south (about) 672 ft.; within which there are many lodes: seven have been discovered—(one of which, the celebrated Druid lode, in Carn Brea, is supposed to exist in the south part of these mines, to the extent of nearly 314 fms.)—all running in a direction almost east and west. The ores are of good quality, and chiefly yellow; and the tin of a fair average produce. The above setts are held under an unexpired lease of 21 years, at a dish (or dues) of 1-24th—the Hon. A. M. Agar being the principal owner. The number of shares is 6000, on which 7*l.* per share has been paid (42,000*l.*) The property has been worked by the present proprietary about 10 years—the operations annually increasing; and there have been 10 dividends declared, amounting to 27,000*l.* The returns of the past 12 months amount to 44,248*l.* 3s. 4d., at a cost of 34,782*l.* 14s. 2d.—showing a profit of 9515*l.* 9s. 1d., of which the adventurers have been paid 9000*l.*; and there is now a balance including 515*l.* 9s. 1d.; that of last year, 413*l.* 7s.—together, to the credit of the company, 928*l.* 16s. 1d. During the last year, there have been upwards of 800 fms. of ground opened, and new machinery brought on to the mine (in value about 4000*l.*) There are seven engines erected; six of which are in use—viz., 2 pumping, 1 stamping, and 2 whim engines; the 7th, for the purpose of crushing the ores, will be put to work in a few weeks; and arrangements are now being made for the erection of a pumping engine, in Scotts' land, in the south part of the mines, (which is divided from the north by the Hayle Railway—a very cheap conveyance for coal and materials). The ores are sold by ticket, and the tin by private contract. The management (on the scrip system) is in London, under five directors—at the offices, 44, Finsbury-square. Annual meetings of the shareholders have hitherto been held; but it is the intention of the direction to call quarterly meetings for the future. Two auditors are elected annually, and monthly accounts are received from the mines, and monthly payments made; and the manager sends up his report every alternate week. There are no fewer than 20 shafts sunk, and in course of sinking. This, it may be observed, is one of the oldest mines in the county.

MINING IN WALES.

Llancynfelin Mines.—These mines are situate on the banks of the Dovey, Cardiganshire, and close to the high road to Aberystwith. Few spots could be selected more promising for mineral wealth, or more conveniently situated, being in the low ground at the foot of the Plinlimmon range, and within sight of the port of Aberdovey, whence ores can be shipped, and materials drawn, at a most trifling cost. The sett, which is very extensive (being about one and a half miles in length, by a mile in breadth), contains no less than 15 lodes, and has been worked from time to time, by means of shallow adits, and large quantities of ores raised, although, owing to the want of machinery, it has never been prosecuted in depth. In March, 1845, however, Mr. Percival N. Johnson, of Hatton-garden, was deputed to visit and inspect the sett, on behalf of a gentleman in London, who was interested in property in that district, and his report was so favourable as to lead to the formation of the present company, which is conducted on the cost-book system, and was originally in 640 shares, on which 5*l.* was paid, but owing to the greatly improved prospects of the undertaking, and the large premium they commanded, the number has since been increased to 1280. Some idea of the extent and wealth of this extraordinary sett may be formed, from the following extracts from Mr. Johnson's first report:—"All these lodes exist in clay slate, of very nearly the same character; they have been worked only to a limited extent, except at No. 8, which is termed the main lode, although the character of some of the others holds out prospects of equally good success." The operations on this No. 8 lode have been such as to prove some other lodes, 14 and 15, and will be available in their future prosecution. "The south lodes had a shallow adit driven in the course of the lode from the west, and among the stuff are some very good stones of lead ore (assay 12 ozs. of silver, and 15 cwts. of lead per ton). At the open working at surface is a lode, No. 13, carrying copper, taking a more northerly direction. At the north lodes, Nos. 1, 2, and 3, a level has been driven, and cut two of these—one of which, it is said, has been driven on for 15 fms., and tried to 6 fms. in depth, from which about 25 tons of lead ore was raised. These lodes appear very regular, and are certainly well worthy of further development. At what are termed the middle lodes, Nos. 4, 5, and 6, little can be seen, except from an open working, showing strings of ore, but from the old stuff at surface, assay No. 3 is taken (13 ozs. silver, and about 75 per cent.) At No. 7 the lode has been traced to some distance, but does not appear to have been developed to any extent in depth; but at No. 8 an adit has been taken up, and driven 16 fms. to the present operations, where the prospects are very encouraging. A shaft at this point has been sunk to an 18 fm. level, but the water has not yet been got out to the bottom, though, from the improved prospect, at the 8 fm., from which I broke some stones of rich lead (assay 14 ozs. silver, lead about 75 per cent.), and the statement of the agent, that this improvement continued in depth, I do not hesitate to strongly recommend its further prosecution. * * * In conclusion, I beg to say that, from the highly and increased mineralized state of the lode No. 8 in depth, the many local advantages of the situation, and proximity to a shipping port, I consider these mines hold out great inducements for outlay of capital in their prosecution." Since this report, the water has been forked, the shaft put into good order, a column erected, and the 8 fms. and 18 fms., driven both east and west, from which a very rich pile of lead has been taken, leaving good ore in the back and bottom. A winze is also sinking below the 18 fm., which contains very rich ore, and cross-cuts are being driven to develope the south and middle lodes in depth. A main engine-shaft is also being sunk to take the lode No. 8 at about 70 fms., and which will take lode No. 7 at about 50 fms.; and a very excellent steam-engine, by West, is about to be erected, which may be very economically worked, owing to the abundance of peat immediately at the mine, and the cheapness of coals at the port. The north lodes also are very promising, and it is expected that a very considerable quantity of ore will be found in the low ground, as the stratification of the country is dipping in that direction. On the whole, the adventurers have every reason to be gratified with the prospects of the undertaking. Very few shares have been parted with, but the last changed hands at 15*l.* per share. We shall probably give some further account of these mines in our next.

The following report on these mines, made in November last, when it was proposed to erect steam machinery, may prove interesting to some of our readers:—The shape of the ground composing this sett is very peculiar, resembling an island in the midst of a great bog; it is of considerable extent, and is composed of beautiful blue killas of a secondary formation. There are several lodes and branches, on two of which the present company are chiefly

directing their operations. On the great lode there had been considerable work done at various periods, and great quantities of lead raised, as is evident from the many miniature dressing floors now to be seen, and there are several little workings in different other places, on branches from all of which no doubt lead has been obtained. After looking minutely over a considerable portion of the surface of the sett, and observing the large rich parcels of silver-lead ore as raised from the mine, especially from the great lode, I descended the shaft, in which for some depth the lode was nearly all worked away by the former proprietors, as was manifested by the stulls and cavities now open. I then went into the eight fathom level west in the adit. In this level there is a fine course of rich silver-lead ore, and, in my opinion, containing a great quantity of silver per ton of ore. It is difficult to say its value, without an assay; but I should think it *is worth upwards of 40l. per fm.*, and for a considerable length the roof presented a fine course of good ore. The ground is very inexpensive to break. I next went to see the 18 fm. level under the adit. In this level the lode is somewhat disordered by slides; but it appears likely, as it is driven further west, it will be more regular. There are rich parcels of ore got out of this level; in the eastern end the lode is much improved, but not rich yet. I then saw the adit level west—this presented a considerable number of lead branches, none very large, but very promising. After seeing most of the workings open on this lode, I examined the long adit level, and was exceedingly pleased to observe the many kindly lodes and branches it has intersected, and which, no doubt, will prove more or less productive of ore when worked. From this I went to the north lodes now working, and found a good looking parcel of lead ore at the surface, and intermixed was some very rich copper ore in small quantities—the deepest shaft is about 5 fms. below the surface. The level east has been driven through some good ground; at present it is unsettled rubbish, but seems likely to be all right again shortly. The new engine-shaft is sunk but very little. On the whole it is manifest that the mineral riches of this sett will not be developed without machinery for draining the water and crushing the ore, and which I find is to be erected. My opinion of its value is very high, as it promises to become a more profitable concern than is usually to be seen. —JOHN PAULL, mining engineer." Since this report considerable progress has been made, and the value of the ore at grass is estimated at nearly 2000*l.*, so that the mine may be considered to be already paying cost; and, as soon as the machinery is erected, a dividend may be expected.

[FROM CORRESPONDENTS.]

DRAKE WALLS.—The workings here are going on quietly, but, if report be true, they are likely to make some noise—a lode in the bottom level being found to be worth 40*l.* per fm.—[If such be the case, why is not information rendered by those interested, and that we should not be left to gather it from other sources.—ED. M. J.]

HERODSFOOT—bids fair to take a prominent position among the mines of the district. Every preparation is making for sampling about 20 tons of rich lead ore, which will be ready in a short time. Some of the pitches turn out better than expected, and one pair of tributers will make a "stent" of full 20*l.* for the last month. The 24 fm. level south is very promising, and approaching Winsor's shaft, where a branch of rich ore was seen shallow. The engine-shaft is being sunk with all possible dispatch.

SILVER VALLEY.—Operations here are progressing, and with good promise: the tin lode, we are given to understand, by a correspondent, on whom we can well rely, is "excellent," and in the south mine ruby, grey, and native silver, shows itself; while it, of course, remains to be seen as to the quantity which may be returned.

STRAY PARK MINE.—Several letters are in London, mentioning a great improvement in the 150 fm. level.

TAVY CONSOLS.—They are sinking a winze, which is about 11 fms. deep, and, strange to say, no water in it. The lode is about 2½ ft. wide, 6 in. of which is good saving work. There is a great many tons of ore dressed on the floor, which shortly will be sampled.

VIRTUOUS LADY MINE.—This mine has commenced operations with a Plymouth company. They have forked the water in some parts of the old mine, and have commenced raising ore. We hope they will be as successful as the former proprietors, who rose 8000 tons of copper ore, and sold it for 50,000*l.*

TRELAWNY CONSOLS.—This sett has been worked under a doubtful holding for upwards of a year and a half; but I am informed that they have now the assessionable manor commissioners award settled, and the Duchy officers have now defined the boundaries of the sett, which is very extensive. There is a large track of land on the north part of the sett added to it, which was formerly considered to be glebe land; but, since the above settlement, the company thought well to shode across it, to prove what lodes are in it. In so doing they have cut two good looking lodes—one about 2 ft. wide, and the other about 2½ ft. wide. There is an adit driven on a copper lode upwards of 200 fms., and cut the Beeralstone lead lode; we have just turned house on it, and find it to be composed of can, or fluor spar, prian, mundic, and lead, and of a very promising appearance. The object of the company is to sink a shaft to the south west of the church on the great copper lode, when it will command the lead lode and the parallel copper lodes also. There is not much machinery on the mine, more than a water-wheel (driven by the water coming from the adit level), which pumps the air into the mine, and a railroad, which takes away the stuff broken in the mine. On the same lode, on the other side of the river Tamar, in George and Charlotte Mine, we have a good lode, said to produce 5 tons of ore to the fm. Still further south and east is the Tavy Consols—this lode also passes through the south part of Trelawny Consols.

WHEAL FRANCO.—This mine is progressing fast towards making dividends: the development of the lodes fully justify the opinion formerly entertained. Although the quantity of ores during the past three months has not been so large as expected by many, but can be accounted for by the alteration in the system lately adopted—namely, from tutwork to tribute—together with the scarcity of miners, which has arisen from the demand of labour, in consequence of the numerous adventures lately commenced in the district; but this want is likely to be obviated, by the desire of men to get into more constant or settled wages,—which is now becoming more apparent, as five new pitches have been set, making altogether 16 pitches, varying from 7s. to 13s. 4d. in the 20s. The monthly cost has been considerably decreased; whilst the tributers, being left to their own exertions, are strenuously endeavouring to increase their wages, by their return of ores. The tributers' parcels are generally large; and as their ore is not dressed, and carried to the account of the adventurers, before the expiration of their "stent," either for one or two months, it may be fairly calculated that the sales will greatly advance in quantity, whilst the produce will be improved by an improvement in dressing the ores. The following returns for January, February, and March, will fully corroborate the above:—

		Tons	c.	q.	Produce.	Amount.	Cost and dues.
Jan., 1846	—sampled	105	0	0	5½	£590	about £520
	„	23	12	3	4½		
		128	12	3			
Feb., 1846	—sampled	24	19	1	9½	548	„ 475
	„	64	12	0	7½		
	„	11	12	0	4½		
		101	1	1			
Mar. 1846	—sampled	49	16	2	Sale not as yet effected.		
	„	31	0	3			
	„	18	17	1			
		99	13	2			

The new stamps are expected to be completed and at work in about a month from the present time, when that portion of the work will be greatly facilitated.

WHEAL WALTER.—We understand, from a correspondent, this mine is looking well, and holds out promise of early returns. Perhaps our correspondent will be less concise in his next communication.

WHEAL CALSTOCK.—This sett is to the east of Wheal Mary and south of Harrowbarrow Consols and Wheal Edward. They have several lodes passing through the sett; it is a piece of ground thought by practical men to be worth an outlay. Wheal Mary is still sinking their engine-shaft, and while this continued wet season lasts, they may depend on water to work their wheel with, the additional water coming from the Harrowbarrow Old Mine.

NORTH WHEAL ROSE MINING COMPANY.—A meeting of the shareholders was held at the George and Vulture Tavern, Cornhill, on Friday (yesterday), —WILLIAM CARNE, Esq., in the chair. The report of the mine was of a very satisfactory nature—(but, in consequence of its length, and the lateness of the hour the account of the meeting reached us, we must needs postpone them)—from which it appears, that the weather having proved so very unfavourable of late, the water had considerably retarded the progress of the works, whilst it had increased the expenditure. A debt of 1300*l.* against the company had been incurred; to discharge which, with the further prosecution of the mine, and to meet the present Chancery suit, a call of 4*l.* per share was declared necessary, which was most cheerfully responded to by all present paying the same

WHEAL SUSAN MINE.—At a meeting of shareholders, held at the counting-house, on the 4th of April, a call of 10s. per 1024th share was made, to be paid on or before the 17th inst.

WHEAL FORTESCUE MINING COMPANY.—At a meeting of adventurers, held at the mining office, Tavistock, on Wednesday, the 8th inst.—JOHN RENDLE, Esq., in the chair,—the accounts and vouchers for four months to February (included) were produced, and, having been examined and found correct, showing a balance in hand of 57*l.* 14s. 5d., it was resolved—That tenders for the building a water-wheel be immediately issued, and the erection of the wheel proceeded with with the least possible delay; also, that a call of 1*l.* 10s. per share be made on the adventurers, to be paid on or before the 22d inst.; and that, as soon as the season will admit of it, the costeaning, or such other trial of the western part of the sett at Slew, as the agents shall deem most advisable, shall be carried into effect.

GREAT WHEAL WILLIAMS MINING COMPANY.—At the two-monthly meeting of adventurers, held at the Prince George Hotel, Stonehouse, on Monday, the 6th inst.—Capt. ATKINSON in the chair,—the accounts, showing a balance in hand of 41*l.* 0s. 7d., having been audited and passed, it was resolved—That the proposals offered by the Lamerhooe adventurers be accepted; and that Capt. Cooke be authorised to communicate with Mr. Snell, informing him that all legal expenses must be defrayed by the Lamerhooe Company. It was also resolved—That the following gentlemen compose a committee of management: —Capt. Atkinson, Mr. Vigers, Mr. Crosthwaite, Capt. Ormond, Capt. M'Queen, Mr. Swinton, Mr. Willan, Mr. Darke, and Mr. W. D. Seymour.—The following report from Capt. B. Cooke was read to the meeting:—"Since the last two-monthly meeting we have driven the Highwood adit level 19 fms. 3 ft., and laid down 51 fms. of railroad. The lode is about 1½ ft. wide, composed of sugary spar, killas, flookan, mundic, and lead, carrying a regular hanging wall. We have, this day, let to six men 12 fms., at 30s. per fm. The water has not left either of the shafts as yet."

NISTER DALE IRON COMPANY.

A special general meeting of shareholders was held, pursuant to advertisement, at the offices of the company, 10, Old Jewry Chambers, on Friday, the 17th inst. S. P. PRATT, Esq., in the chair.

The CHAIRMAN stated, that the object of convening the present meeting was to confirm the resolutions adopted at previous meetings—having reference more especially to the purchase of certain mineral property in Prussia, as also from the Swinton Iron Works, near Sheffield; and further, to the additional capital contemplated, with the view to the extension of the operations of the company, and the more beneficial working of the same. As regards the purchase of the Wissen property in Prussia, an offer of 2500*l.*, as a bonus thereon, had been since offered to the company. The reports upon the quality of steel, produced at the Swinton works, made from the Nister Dale iron, had proved to be of a highly superior nature, and that orders, at advanced prices, might be readily secured.

The meeting, which was, however, not numerously attended, expressed its satisfaction with the statements submitted by the chairman and Mr. H. Scales, as regards the past operations of the company, and the prospects held out to the shareholders; and the several resolutions passed at the preceding meetings were confirmed and adopted. It was stated, in the course of the proceedings, that a great portion of the additional capital required had been at once subscribed by the principal shareholders.

Thanks having been given to the chairman and board of directors, the meeting separated.

COMPANY OF COPPER MINERS IN ENGLAND.

The annual general meeting of the shareholders in this company was held at their offices, on Wednesday, the 8th inst.

A. L. GOWER, Esq. (the governor), in the chair.

The minutes of the last meeting having been read and confirmed, the GOVERNOR proceeded to read the report of the proceedings of the company during the past 12 months. In adverting to the operations more immediately associated with the collieries, it was stated that the coal trade had gone on prosperously, advanced prices being readily paid, while the demand even exceeded their power of meeting increased "haulage;" power had, however, been availed of,—and, from the extended operations of the company, in opening fresh seams of coal in the Cwm Avon Valley, no doubt was entertained as to the capabalities of the company, or the extent of supply being fully adequate to the demand. The railroad, in course of construction in the Swansea Valley, would further afford increased facilities of transport, and, consequently, extend the coal trade in that locality. The improved state of the iron trade had induced the directors to hasten, with due regard to economy, the erection of the new furnaces and rolling-mill; at the same time, that a stock of blackband and ironstone had been secured, and the necessary underground workings carried out for the regular supply of that material. Six furnaces, it appears, are now in active working, and a seventh on the eve of being put in blast; the rolling-mill is not yet in operation, but expected to be so in the course of the ensuing month. As regards tin plates, the report adverts to the general slackness of trade in that article, although, during a considerable portion of the past year, it may be said to have been brisk, at fair remunerative prices. "The copper trade (continues the report) has been remunerative throughout the year, and promises well for the future." In directing attention to the operations of the compauy during the past 12 months, we find that the quantity of coal raised during that period is 254,644 tons, of which quantity 146,127 tons were consumed, and 96,018 tons sold. At Swansea the make of refined copper for the year was 1827 tons, and at Cwm Avon 1960 tons of copper were smelted, of which 1117 tons have been rolled or hammered; 42,239 boxes of tin plates have also been manufactured at the latter works; and the make of iron at Cwm Avon and Oakwood, during the like period, is set down at 10,500 tons, or about 200 tons weekly. The report then proceeds to observe on the inconvenience—not to say the impoliey—of entering into the details of the company's affairs; while the directors feel much pleasure in stating generally, that no branch of its business is otherwise than productive. After adverting to the facilities which will be afforded by the construction of the Llynvi Valley and South Wales Junction Railway, and the increased value of the interest held by the company in Port Talbot, the report directs the attention of the financial arrangements of the company, and the necessity of raising additional funds, arising from the extension of the works, in the purchase of the Oakwood property, and the subsequent discovery of the "blackband" on both sides the Cwm Avon Valley, and the erection of additional blast-furnaces and rolling-mill, with extension of forges, in addition to which the purchase of the lease of the whole of the Cwm Avon property had been recently effected. On the reorganisation of the company in 1841, it was considered that a capital of 650,000*l.* would be required to carry on the business as then contemplated; since which a considerable addition has taken place in the prosecution of the several works. The directors had, in consulting the interests of the proprietors, effected certain arrangements for the advance of money by way of loan, rather than make calls; the duration of the term for which such sums were borrowed being from five to seven years, with one exception, a portion of the amount being raised under an agreement for two years only, with an agreement, however, on the part of the lenders, to continue the same for a further term; circumstances, however, have occurred, which rendered it necessary that arrangements should be at once made for the early liquidation of the amount so advanced by way of loan. It was, therefore, proposed that a sum not exceeding 500,000*l.* should be raised by the issue of preference shares—such course being considered preferable, to enforcing calls on the shares of which the company is at present constituted; the amount being divided into shares of 25*l.* each, and issued as the directors may, from time to time, think fit; the holders thereof being "entitled for each half-year to such preferential dividend as may be agreed on by the court of assistants (not exceeding the rate of 37s. 6d. per annum, paid up in full), before the payment of any dividend to the other shareholders, but not to be entitled for any half-year to a dividend beyond the preferential dividend, unless or until a dividend to the like amount shall have been paid for the same half-year to the other shareholders; after which, the holders of the preference shares, and the other shareholders, shall take rateably any excess of dividend which may be declared."—A resolution to this effect having been submitted, the same was adopted; the CHAIRMAN observing that, although it might appear that an advantage was given to those who might advance the required capital on the preferential shares, yet that it must be manifest to the meeting, that every shareholder had the option of taking his proportion, and thus, in other words, subscribing additional capital from whence he derived an increased advantage, at the same time that it did not reduce his original interest.—Mr. EDWIN LEY, as one of the largest original shareholders in the company, fully concurred in the measures proposed by the directors, and, with the confidence he reposed in the court, felt that it would be most prudent; as it was, he felt assured most to the interests of the body of proprietors to leave the matter to the discretion of the directors.—A series of resolutions having for their object the carrying out of the measure proposed, were then adopted.—In reply to a question as to the issue of the new shares, and the period of the instalments coming due, the CHAIRMAN observed, that letters would at once be issued to the proprietors, to ascertain what extent they took; that, as regards the payment of the 25*l.* per share, such would be required by five instalments—20 per cent. being called immediately; 20 per cent. in July; and the remainder at intervals of three months.—In the course of the discussion which arose, Mr. GOODHART expressed his regret that the directors should not think it prudent to lay all the affairs of the company before the proprietors at their general meetings. This was done by all joint-stock banks; and he thought, if they failed to pay the interest contemplated, the proprietors generally would be more satisfied.

The GOVERNOR, in reply observed, that the affairs of this company were of a different nature to those of joint-stock banks. The question had been well considered and deliberated upon by the directors; but they thought it more prudent to adopt their present course. This was a trading company, and had to compete with rivals in the market. He thought the publishing a balance sheet would act to the prejudice of the company.

The motion was then put for the election of governor, deputy-governor, and court of assistants, whereupon A. L. Gower, Esq., was declared elected as governor; J. Nix, Esq., deputy-governor; and the following gentlemen on the court:—J. Alston, T. R. Guppy, J. Lawrie, H. Logan, W. S. Moorsoom, J. H. Pelly, F. Ricketts, G. S. Walters, H. J. Enthoven, J. P. Kennard, W. Little, J. Macdonnell, A. Paul, A. Ricketts, L. Vigurs, and R. Warren, Esqs.—A vote of thanks having been passed to the governor, deputy-governor, and court of assistants, the meeting separated.

LAMERHOOE WHEAL MARIA MINING COMPANY.

A special general meeting of the adventurers in this company, was held at the offices of the secretary, 4, King-street, Cheapside, on Thursday, the 16th inst. JOHN EDWARDS, Esq., in the chair.

The advertisement convening the meeting, as inserted in the *Mining Journal* of 11th inst., having been read, the following report of the finance committee was submitted:—

REPORT.

The finance committee appointed by the shareholders in this mine on 26th April, 1845, have now the pleasure to report to the shareholders the progress that has been made in working the mine, and its present actual condition. Your committee beg to state, that shortly after their appointment a deputation proceeded to the mine, and, after a minute consideration of the claims of the various candidates for the office, selected Mr. John Tabb, as their captain of the mine, who, in conjunction with Mr. John Williams, of Lanivet Consols, as viewer, has since managed the working affairs in a manner to merit the entire approbation of your committee. Your committee, with such assistance and advice, opened on the lodes then discovered, and commenced costeaning on the north, and driving a cross-cut on the south part of the mine (which is now extended 84 fms.), for the purpose of discovering other lodes; and they have now cut and opened upon at least 11 lodes, running nearly parallel with each other, and having a course a little to the south of east and north of west, and which are marked on the map from A to L, all underlaying north except the H lode and a new lode, which have a south underlay, and form no doubt a junction at various depths with the south lodes. This direction, or underlay, of the lodes is considered by experienced miners of great importance, as large accumulations of copper are generally found at such junctions. The L lode has been cut by the adventurers of Great Wheal Williams, a few fathoms east of the Lamerhooe sett, where it produces copper ore of a high produce. Your committee having explored these lodes, and ascertained their underlay and direction, had recourse again to the advice of Mr. John Williams, their appointed viewer, and Capt. Tabb, to decide on the spot where the engine-shaft should be sunk, and the steam engine erected, also as to the power required, as well as the other necessary machinery and materials for sinking the engine-shaft, and the future working of the mine. They have accordingly entered into a contract with Messrs. Hocking and Loam, engineers of St. Day, for a steam-engine of 60-in. cylinder (135-horse power), to be delivered and erected upon the mine in complete working order on or before the 30th day of June next, for the sum of 2343*l.*, which price includes all labour, materials, and erections of every kind—such as engine-house, boiler-house, &c. Your committee have also given orders for the other requisite machinery and materials, which are now in course of delivery, with all possible expedition. Two engine-shafts, recommended to be sunk, have been commenced, and are now in progress, as will appear by the report of Capt. Tabb appended hereto; and generally every means have been taken by your committee, consistent with prudence, to develope the value of the mine, and to prosecute the necessary workings. Your committee beg to lay before the meeting a statement of the account of calls and expenditure to this date, and the cost sheet of the mine for March last, which, including a large quantity of timber lately purchased, amounts to 631*l.* 8s. 5d., and remains unpaid. The cost of the engine, and of the further necessary supplies of timber and materials, have to be provided for; and your committee are satisfied that the shareholders will cheerfully provide the necessary funds to meet this expenditure, by means of a call, to be declared at this meeting. Your committee are much pleased in being able to state, that several highly respectable and practical mining agents, who have at various times inspected the lodes, consider them of a most promising and encouraging character, and that Lamerhooe cannot fail at a future day of becoming one of the best mines in the district, and must handsomely repay the shareholders for their outlay. All the necessary workings of the mine are now proceeding vigorously and satisfactorily, regard being had to the strictest economy.

The following is a copy of Capt. Tabb's report, dated 9th April, 1846:—"Agreeably to your request, I beg to hand you my report of this mine. Our underground operations are progressing favourably. Our cross-cut north is driven 84 fms. In this cross-cut we have intersected four lodes—two south underlayers and two north underlayers. We do not consider it advisable to extend upon the course of these lodes at this depth, as it is very shallow; and there is a new shaft sinking, called Davey's shaft, to enable us to command these lodes at greater depths. This shaft will also command letter K lode, still further south, underlaying north between the mouth of the cross-cut and river. We could not commence our cross-cut nearer the river than within 30 fms., as often during the floods the river swells to an extraordinary degree. On lode marked F, not as yet intersected by cross-cut, we have sunk a few fathoms in the pit; the lode is 5 ft. wide. On letter E we have also sunk a few fathoms; this lode is 2½ to 3 ft. wide. On letter D we have sunk a few fathoms near the cross-course; it is 2 ft. wide. On letter C we have sunk a few fathoms; the lode is 2 ft. wide, but increasing in size and depth. The workings on these lodes are all suspended, owing to an influx of water. On letter B we have driven 9 to 10 fms. on course of lode; this lode is 7 ft. wide, but its working is also suspended, owing to its shallowness. On letter A we have sunk 10 ft.; this is our most northerly lode, and is 4 ft. wide, but owing to the water also, we cannot sink further upon it; we are, however, driving upon its course in the hill. The whole of these 11 lodes, varying from 7 to 2 ft. in width, have very promising appearances as far as developed, which being taken into account, in conjunction with a most beautiful and congenial strata, justifies the most sanguine anticipations. They are composed mostly of beautiful gossan, and some of them impregnated with copper, samples of which you have already seen. The engine-shaft (Hay's shaft), is sunk 6 fms. 4 ft., and is intended to take F lode at the 60 fm. level, and the 60 in. engine is about to be erected on this shaft. This engine will also command E lode. Davey's, or southern shaft, is sunk between H and I lodes. This shaft will take the L, J, and K lodes, which are to the south of shaft and underlay north, and to lodes two north of shaft underlaying south. It is proposed to put horizontal rods from the 60 in. engine to Davey's shaft, for the purpose of draining water. It is a powerful engine, and it is to be hoped it is sufficiently powerful for this double purpose. The engine-house is progressing rapidly, and will be finished by the 30th of this month. We are pushing our surface operations as vigorously as possible; we are building, and nearly completed smiths' and carpenters' shops. The old smiths' shop we purpose for a store-house, which will be absolutely necessary. Now, upon the whole, although we cannot report any material or decided improvement in the prospects of the mine, or rather lodes, since our last report, I beg to congratulate the shareholders upon the vigorous mode of working this mine, which cannot fail to be productive of good."

Your committee beg to observe, that the difficulties mentioned in the above report of Capt. Tabb, as arising from an influx of water, will be completely overcome as soon as the engine and pumps are brought into operation. As the workings of the mine are now becoming important, and will require most efficient management, your committee beg to tender the resignation of their trust into your hands, and to recommend the remodelling of the finance committee.

The accounts, showing the receipts and disbursements, since the commencement, were then read, showing the amount of calls made up to the present time, being 2048*l.*; while the expenditure on the mine was 1231*l.* 4s. 4d., and other charges, 72*l.* 11s. 10d., which, with the arrears of calls due, 22*l.* 10s., and the balance in the bankers' hands, 516*l.* 13s. 10d., made up the amount. The several items in detail will be found in our advertising columns.

Mr. RUSTON having raised a question as to the arrears of calls, the CHAIRMAN referred to a form of circular which had been prepared, with a view to its immediate transmission, which, having been read, was approved.—Mr. DAVEY explained that the entire amount of arrears, after allowing for the amounts then in course of payment, did not exceed 140*l.* or 150*l.*—The CHAIRMAN explained the several items of accounts submitted, and observed that the whole expenses in London, since the commencement of the working of the mine, was under 100*l.*—the directors having rendered their services gratuitously.

Mr. RUSTON moved, that the report and accounts be adopted, and that the same be printed, which motion was carried unanimously.—A question was put to the Chairman, as to the costs incurred at the mine, being excessive in the last monthly cost sheet; in reply to which, he (the Chairman) stated that the accounts for March, amounting to upwards of 600*l.*, had attracted the attention of the committee; although he could not but express his hopes, with that of his co-directors, that any doubts which might exist on the part of the shareholders would, on inquiry, be dispelled. Mr. Davey, an active member of the committee, would proceed early in the ensuing week to Cornwall, when he would take the opportunity of ascertaining the correctness of the items charged; while he could assure the proprietors, the committee were most anxious not only to protect their own funds, but also to economise the application of those placed in their hands, and immediately to rectify any abuses, should such be found to exist; at the same

time, he begged to intimate the intention of the committee of convening meetings of the shareholders each alternate month, so that henceforth the accounts should be more immediately under their own supervision.—It was then moved by Mr. MORRISON, and seconded by Mr. SMITH, that the accounts submitted to the meeting be advertised in the *Mining Journal*, for the information not only of the absent shareholders, but those generally interested in mines—while, it was understood, that printed copies of the report, with the accounts, would be also forwarded to the respective shareholders.—It appearing from the statement of the chairman, corroborated by the secretary, that a difficulty arose from the present system of ithe transfer of shares being made direct through the purser, and not passing through the office of the company—an instance having occurred when t was found impossible to determine who was responsible for a call made, arising from the irregularity in having the transfers duly registered, and which were too frequently executed by the vendor in blank—it was moved by Mr. DAVEY, jun., and seconded by Mr. LEE, "That, for the convenience of the shareholders, all transfers of shares shall be sent in the first place to the secretary, who will acknowledge the receipt thereof to the purchaser, and send such transfers to the purser for registration."—This resolution was carried unanimously, and it was impressed on the meeting the importance of immediately registering transfers, so as to relieve the parties from responsibility.

The CHAIRMAN having directed the attention of the meeting to the paragraph in the report, announcing the retirement of the finance committee, observed, that the power was now in the hands of the shareholders, who would appoint such gentlemen for the future management of the mine, in whom they had full reliance.—A list of those gentlemen who had retired was accordingly read, and it was resolved that an addition of two proprietors be made thereto, with the appointment of one gentleman in the room of one of the late committee, whose numerous avocations precluded him from giving the necessary attention to the affairs of the company.—It was then resolved, that Messrs. J. Edwards, Davey, Morrison, J. J. Hays, Nutt, and G. W. Price, be re-elected, and that Mr. Smith be elected in the room of Mr. Hebard, and that Messrs. Ruston and Pegg be added to the number.—The CHAIRMAN, on behalf of his colleagues and himself, thanked the proprietors for this renewed mark of confidence, and begged to assure them that it would be the province of the directors, not only to render their best services, which they had heretofore done gratuitously, and which they had determined to do until the mine should have been brought into a profitable state; but that, holding a large interest, it would not only be incumbent on them to protect the company from any wasteful expenditure, but that, in every sense, they felt full confidence in replacing unsullied, in the hands of the proprietors, the trust reposed in them.

The CHAIRMAN proceeded to direct attention to the financial affairs of the company, observing that, although it appeared upwards of 500*l.* was in the banker's hands, yet it must be manifest to all present, that a call was indispensable, to meet the cost of the engine, and the monthly cost for the ensuing three or four months, while, it must be remembered, the March cost remained yet unpaid. He would suggest that a call of 2*l.* per share, but certainly not less than 30s., be now made; the amount being paid by instalments, as might be required. It was necessary that the directors should be provided with the sinews, if not of war—at least, such as would enable them to overcome those natural difficulties which presented themselves in all mining adventures, and which the proprietors should be at all times prepared to meet.—It was then moved by Mr. DAVEY, seconded by Mr. RUSTON, that a call of 2*l.* per share be now made; the same being payable in instalments of 10s. each, at such times as the directors might think necessary.

After a cordial vote of thanks having been passed to the chairman and committee, which was duly acknowledged, the meeting separated.—It may be observed, as rather a solitary instance, but one which might be beneficially adopted in other companies, that the report was printed, and placed in the hands of each proprietor, with a lithographed copy of the sett, and the several lodes laid down.

TINCROFT MINING COMPANY.

The annual general meeting was held at the offices of the company, 44, Finsbury-square, on Tuesday, the 14th inst., pursuant to advertisement, which was read from the *Mining Journal*, of 21st March ult.

J. GROUT, Esq., in the chair.

The CHAIRMAN, in opening the proceedings of the day, referred to the report then to be submitted, and the accounts; while he observed, that any information which might be required would be readily afforded by himself and co-directors.

REPORT.

The directors have a pleasing task to perform in pointing to the prosperous state and prospects of the mines, notwithstanding the very heavy outlay on new works, during the latter months of the year, which give every promise of being remunerative. They have been enabled to pay three dividends, together amounting to 9000*l.*,—although, for the last few months, the expenditure necessarily has been large, for machinery, sinking shafts, and opening new ground, which is more fully detailed in Capt. Paul's report, which will be read. The directors trust, at no very distant day, to resume the payment of dividends. The machinery added has cost little short of 4000*l.*, and there have been upwards of 800 fms. of ground opened during the past year; while the accounts show an expenditure of 13,500*l.* more than in the preceding year, affording satisfactory evidence that in every department the mine is now in a most efficient state, and in a position such as not to require any further expenses, beyond those of the ordinary description, or such as can be calculated on to interfere with the future regular dividends. The accounts have been audited by Messrs. Burls and Leary, and are as follows:—

Expenses at the Mines.

1845—Three months (ending May)			£6785	19	3	
Ditto	(ending August)		8279	12	11	
Ditto	(ending November)		10045	1	7	
1846— Ditto	(ending February)		9020	5	2	
Amount of expenses in London		£479	8	10		
Discounts		122	6	5—	601	15 3—34,732 14 2
Three dividends—viz., 8th, 9th, and 10th						9,000 0 0
Total						£43,732 14 3

Returns, &c.

Balance at last annual general meeting				£	413 7 0
Copper ore sold	£32319	15	5		
Tin ditto	6608	2	10		
Arsenic ditto	149	6	8		
Old iron	70	11	6—39,561	3	5
Balance			4,171	10	9
Total				£	43,732 14 2

The report and accounts having been read, Mr. STAINSBY, one of the directors, proceeded to read the report prepared by Capt. Paul, the resident agent at the mine, which, it will be observed, is far more minute than those ordinarily presented at meetings in London:—

REPORT.

As your general meeting of the shareholders will take place on the 14th inst., I beg to lay before you my report of our proceedings from your last meeting to the present time. I have uniformly endeavoured to act according to your instructions in conducting our operations—that is, to work the mines in a legitimate miner-like way. In order to do so, it has been found absolutely necessary to lay out a great deal of money in machinery, such as a new steam-whim to draw the stuff from the eastern part of the south mine, at a cost for the machinery and erection of about 560*l.*; also an engine for crushing the ores, and to draw stuff from the western part of south mine, this machine when complete (now nearly so) will cost 1060*l.*; the boilers to the stamping-engine, after being in work for 10 years, failed, both at the same time, so that we have been obliged to have one new boiler, and get the others repaired at a cost of more than 450*l.*; the flat-rods to Scott's ground, from the draught engine (a distance of 216 fms.), with pitwork, capstan, shears, whim bobs, &c., have cost full 360*l.*; the water being too powerful to be drained by flat-rods, we were obliged to suspend them, and commence clearing the adit (which is 27 fms. from surface), with the water standing to surface beyond, the clearing the adit, with the timber used, have cost 147*l.*; we have laid out in timber and iron for railroads, 250*l.*; the repairs to the stamping-engine, with the new bob end to engine-house (all of cut granite), have cost full 276*l.*; the draining the south mine of water from the 90 to the 152 fm. level has cost 250*l.*; and we have added to our stock of working materials (say nothing about machinery) full 300*l.*—total, 3653*l.* In addition to the foregoing, we have built changing houses for the labourers, and put the working materials on the mine into good repair, which have added considerably to the expenditure. The danger of clearing the adit against such a weight of water being represented to the honourable and humane Anna Maria Agar, by her steward (Alfred Jenkin, Esq.), she has kindly offered to give 150*l.* towards the expenses in setting up an engine on the shaft to draw the water to surface, while the adit shall be cleared through dry, without danger to life or property. We are to be assisted by the Cooks Kitchen adventurers to the amount of 100*l.* (25*l.* of which has been paid), as that mine will derive considerable advantage by the water being drained from Scott's ground (so called in Tincroft); but in Carn Bros Mines, the Druid lode, which is now very rich, coming towards this mine, we have about 314 fms. of the said lode in the ground recently added to this sett, and in the south part of this sett. This one lode is enough to induce any company to advance sufficient to develope its resources, had there been no other near it, but it has been ascertained that there are two other promising lodes in its immediate vicinity. As we cannot continue to clear the adit without forfeiting the 150*l.* which has been promised, I think no time should be lost in getting an engine to work in the favourable season of the year now approaching. The very heavy expenditure of the past year has made the dividends less frequent than they otherwise would have been. The standard of copper ore having gone down in the last few months, has prevented us from letting several pitches, and we have been obliged to advance the tribute of those now in course of working, in order that the men may be fairly remunerated for their labour. The price of tin also having gone down, has made against us, but we hope that the standard for copper, and the price for tin, will soon go up again.

I will now proceed to a statement of the ground laid open in the different parts of the mines, by sinking shafts, winzes, driving levels, &c., during the past year. The new engine-shaft (which, at your last meeting, was 4 fms. below the 80 fm. level,) is now 6 fms. below the 90 fm. level; this shaft is now being sunk between two lodes—the north lode is about 4 fms. to the north, the south lode about 10 ft. to the south; we do this in order to preserve the regular underlay of the shaft, for the sake of the pitwork, and the drawing the stuff; we hope to get to the 100 fm. level in three months. Willoughby's shaft has been sunk since your last meeting, on the course of the North Tincroft lode, 16 fathoms 4 ft. 5 in.—is now to the 80 fm. level; this shaft has laid open some good ore ground; the east end of the shaft is now working at 2s. 6d. from it. The 90 fm. level has been extended east and west of new engine shaft, 39 fms. 1 ft. 11 in.—has laid open ore ground; we have 3 pitches working in the back of this level, at an average tribute of 8s. 3d. from 1*l.* The 80 fm. level has been extended 86 fms. 11 in.; this level has been very productive—we have 7 pitches in the back, working at an average tribute of 7s. 1d. from 1*l.* The 70 fm. level has been extended 82 fms. 10 in.—40 fms. through good ore ground; we have 9 pitches in the back, working at an average tribute of 7s. from 1*l.* The 60 fm. level has been extended 81 fms. 7 in.; I cannot boast of the ground laid open in this level, yet we have some ground working at high tribute in the back of it; this, and the other eastern levels, have been more productive for tin than copper ore latterly. The 50 fm. level has been extended 49 fms. 9 in.; this level has laid open good ground that is now working at an average tribute of 9s. from 1*l.* The 40 fm. level has been extended 23 fms. 5 ft.; we have 3 pitches working in this level at an average tribute of 9s. from 1*l.* We have sunk winzes in different parts of the mine, to open ground and ventilate the levels, 170 fms. 3 ft. 3 in.;—making a total of 549 fms. 8 in. sunk in north mine. At Palmer's, on East Pool lodes, we have laid open, by driving and sinking, 157 fms. 1 ft.; and in the south mine, 103 fms.—thus giving a grand total for the mines of 809 fms. 1 ft. 8 in., being an average driving per month of 67 fms. 2 ft. 7 in. We have 26 pitches working in the south mine, at an average tribute of 7s. 8d. from 1*l.*—employing 79 men, besides boys. In the north mine we have 34 pitches working, employing 105 men, besides boys, at an average tribute of 8s. 2d. from 1*l.* At Palmer's we have 8 pitches working, by 32 men, at an average tribute of 8s. 8d. from 1*l.* I think you will now see clearly the true state of these mines, by the tributes being given for working the ground; I need only say, that we continue to open ground with the same spirit and economy as heretofore, and have no doubt of successful results. We have just commenced sinking a new shaft to go down on East Pool lode, in the western part of the north ground, near to where a good discovery has recently been made in East Crofty; and we have no way to get at it but by sinking this shaft. You will see by the plan sent you the situation of the said shaft, and the run of the lode in our eastern levels. This north ground, which received but a very partial trial by the former workers, is likely still to be a very valuable piece of ground. I think I may venture to say, that Tincroft was never in so good a working condition as now; the machinery is all in good working trim (with the exception of the new crusher), which will be in course of four or five weeks. The prospects in the different parts of the mines are very encouraging indeed; and all the agents, with myself, doing all we can for the interest of the company.—WM. PAUL.

P.S.—We expect to sell 1000*l.* worth of tin next Saturday, which I hope will be in time for your meeting. We shall then have, as nearly as I can calculate, 1800*l.* worth of tinstuff and slimes on the mines.

The meeting was well attended, and considerable interest manifested, if we may judge from the questions propounded, and the readiness with which the several suggestions made by the shareholders present were met by the chairman. From the accounts presented, it will be seen that the expenditure, for the 12 months ending February last, was 34,732*l.* 14s. 2d., while the returns amounted to 39,561*l.* 3s. 5d., exclusive of the value of the February ores, and those at surface. The sale of copper ore raised in February amounted to 2222*l.* 8s. 10d., and that of tin 1046*l.* 8s. 6d.; to which is to be added tin at grass—estimated at 1800*l.*, which, with other items, showed a total of 5100*l.* 6s. 10d., or a virtual balance in favour of the company of 928*l.* 16s. 1d. It was further remarked, in referring to the items on the debit of the account, that the dues in the past 12 months amount to 1558*l.* 7s. 2d., while, it may be observed, that the mine is held at the moderate dish, or royalty, of 1-24th. A dividend of 9000*l.* had been declared during the past 12 months, while the balance appearing in the accounts against the mine are met by the sales referred to, and ores on hand. The drop in the standard was adverted to as one of the causes to which was to be attributed, in a great measure, the cause of the balance appearing to the debit—while the many new workings, and the applications of machinery, which had been costly, during the past 12 months, at once accounted for the present position of the affairs of the company—the advantages to be acquired from the additional ground opened, and the facilities acquired, being held out as affording a prospect of early and increased returns. On the report of the directors, and accounts, with that of the mining agent, being read, a discussion—or rather we might say, a conversation—ensued on several points, to which the attention of the shareholders generally, we think, should be directed, and which form subject matter of an article in another column; while our report of the proceedings at the present meeting is, indeed, all with which we have to do on the present occasion.

A PROPRIETOR having inquired, whether the auditors, who had subscribed their names to the accounts, were proprietors?—The CHAIRMAN, in reply, stated that one of those gentlemen (Mr. Leary) was an official accountant, and not connected with the company—a difficulty existing as to finding parties who were competent to undertake the duties of the office, from the position in which the company was placed as a scrip company—their being no recognition of any shareholder beyond the presentment of the scrip receipt.—A remark being made, that the appointment of any gentleman not possessing shares in the company, and the propriety of the accounts being scrupulously and minutely examined from time to time by parties interested being of the first moment, which could only be expected from those who had embarked their capital, it was submitted to the chairman, it would be highly desirable that two shareholders, holding 10 shares each, which should be deposited in the box at the bankers of the company, should be appointed—this proposition being assented to by the CHAIRMAN, on behalf of his co-directors and himself, the appointment of Messrs. George Mackay and J. J. Iselin subsequently took place.

The subject of altering the constitution of the company from that of a scrip company to one carried on under the cost-book system, or by the shares being registered, was dwelt upon with much force by one or two proprietors, but the general opinion of the meeting was evidently opposed to any alteration, there being every confidence in the direction. The question, therefore, fell to the ground; while another, on which a very general opinion was expressed—that of an alteration as to the general meetings of the company, which, it was complained, were 12 months a part—was fairly and ably discussed; the result of which was the expression of opinion by the CHAIRMAN, that, to meet the views of the adventurers, the meetings should be, henceforth, held every three months.—Mr. SEWELL, the solicitor, on being referred to as to the power of altering the rules in this particular instance, observed that although they could not legally do so, yet the change was manifestly so much to the advantage of the company, that he would not hesitate to hold them harmless.

Mr. FIELD, in addressing the meeting, observed that, having been concerned—and, indeed, put forward—in another company, with which certain parties connected with the Tincroft were interested, was anxious to know what course was pursued as regards remittances and bills drawn—indeed, his object was to ascertain whether such were in the names of the directors, or any particular individual. In putting the question, he did not mean to do so offensively; but would wish to exercise the utmost courtesy. At the same time, having found that some slight irregularities had been observed in other cases which had come under his notice, he had full confidence in the directors, and rather put the question for the satisfaction of the public mind, than to dispel any doubt which might arise with himself.—The CHAIRMAN, in reply, stated that the bankers' book, which was submitted to the meeting, was open to their inspection; that all drafts drawn—and, in fact, all pecuniary matters—were signed by two directors; and an acceptance was handed over by Mr. Stainsby, as evidence.—The answer thus given elicited from Mr. FIELD, and the shareholders present, an expression of pleasure and satisfaction; while Mr. F. again expressed himself as not doubting the correctness of the accounts, but his desire to satisfy others.—Mr. HEALE asked the question, whether the mine could not be conducted on the cost-book system? he hated the scrip principle, if principle it was, where no one knew his partner; he thought there ought to be a registration, or that the mode of managing the affairs of the company in London should be assimilated to the system observed in Cornwall.—The CHAIRMAN and SOLICITOR, in reply, stated that any alteration of the proposed nature would be impracticable, without reconstituting the company, as the rules would not permit such deviation.

Mr. FIELD was desirous of drawing the attention of the shareholders to the election of directors, as it appeared, from the regulations endorsed on the scrip certificates, that the affairs of the company were under a perpetual government, and that any vacancy which might arise could only be filled up by the remaining directors, in whom solely was vested the power of nomination and election; he considered the veto should be with the shareholders. He, moreover, begged to inquire, whether the number of directors, contemplated by the rules, composed the board, or any less number? He begged to assure the chairman, that his question arose not from any want of confidence in those on whom the management of the affairs of the company devolved; but, rather, as a point of regularity, or order.—The CHAIRMAN stated, that the present number of directors were five; and that they should be most willing to fill up the vacancy.—A general conversation on the subject ensued, which, however, ended in leaving the matter with the directors.

A PROPRIETOR having moved that the accounts be printed, the CHAIRMAN observed, there could be no objection to so doing; but that it was incurring a useless expense, as, no doubt, a copy of the report, with abstract of the accounts, would appear in the columns of the *Mining Journal*; and, after some further observations on the part of Messrs. Wilkinson and Field, to a like effect, the question dropped.—It was further understood, in reply to a shareholder, that the cost-sheets and accounts were open at all times to the inspection of the shareholders.—The CHAIRMAN having expressed the intention of the board of directors to convene quarterly meetings henceforward, in compliance with the expressed desire of the meeting—and thanks having been voted to the chairman, for his urbane conduct in the chair, as well as to the directors generally, for their attention to the interests of the shareholders—the meeting separated.

ACCIDENTS IN MINES—ACTION FOR DAMAGES.

We have had our attention directed to a case of considerable importance, as presenting a new feature, in connection with accidents in mines, and bearing on the relation of the proprietor and miner, which was recently tried before the Lord Justice-General and a jury, at the Jury Court, Edinburgh.—In the cause Janet M'Aullay, relict of T. M'Aullay, miner, of Airdrie, was pursuer; and W. F. Buist and Co., coal and ironstone masters, of Millfield Colliery, near Hallcraig of Airdrie, the defendants: it appeared that M'Aullay, while working in the Millfield Colliery, was precipitated to the bottom of the pit and killed. The question submitted for trial was—whether the death of the said T. M'Aullay was caused by the insufficiency of the machinery provided and used by the defenders or others acting for them, for the purpose of enabling their workmen to descend into the said pit, or by the fault, negligence, or want of skill of the defenders, or others, as aforesaid, to the loss, injury, and damage of the pursuers. The damages were laid as follows:—To the pursuer, Mrs. Janet M'Aullay, 1000*l.*, and for her two children, 500*l.* The facts, as brought out upon the evidence, appeared to be, that the pursuer's husband, with another miner, while in the act of descending their employer's coal and iron pit, to repair the damage occasioned by an explosion of fire-damp, which had occurred two days before, were precipitated to the bottom and killed. The unfortunate men were making the descent on a scaffold attached by a chain to a crane, which was wrought on the surface by other two of the miners; and the accident had occurred from the crane, "getting out of gear," and running down with a velocity which defied all efforts to control or to stop it. The points which the pursuer now sought to establish under the issue, for subjecting the defenders in damages, were—1st, that the crane was defective and insufficient; or, 2d, that the workmen (for whom it was alleged the defenders were responsible) had been careless and negligent in managing it. In support of the first of these propositions, the pursuer adduced Mr. George Buchanan, civil-engineer, who gave it as his opinion that the crane was defective in construction, inasmuch as it wanted a break-wheel and ratch; and this was confirmed by Mr. William Lyle, an engineer from Glasgow. Both of these witnesses likewise expressed their understanding that such cranes were not commonly used, without ratch and break. On the other hand the defenders adduced Mr. James Aitken, of Murdoch, Aitken and Co. of Glasgow; Mr. J. B. Maxton, engineer in Leith and Alloa; Mr. John Mackenzie, manager of Dundyvan Works; Mr. David Landale, engineer, and resident manager of Sir John Hope's Works; and Mr. W. M'Creath, mining engineer, Coatbridge. These gentlemen concurred in deponing, upon their professional knowledge, that the crane in question was a good, sound, and efficient machine; that a ratch-wheel would have been useless, and a break-wheel mischievous. They concurred likewise in deponing, upon their actual knowledge of the cranes in common use at coal and iron pits throughout the country, that there was scarcely one known to exist and wrought with ratch and break, or either of these things. On the second point—the question of negligence—the evidence was limited to three of the fellow-workmen of the deceased, who described the occurence as an unaccountable accident. They explained, that this particular crane had been selected, on the occasion in question, by the workmen themselves (including the deceased), as the most suitable for the work to be executed, and as, therefore, preferable to a larger machine of the same kind on the premises, which they might have used, if they had pleased. They further deponed, that there had been no want of precaution and care, or any negligence whatever, in the working of the crane. The jury having been addressed very ably by the respective counsel, and heard the evidence most carefully read over and commented on by the presiding judge, retired, and, after deliberating for about 40 minutes, returned with a verdict for the pursuer, damages for herself and children 400*l.* It has been stated that application will be made, on the meeting of the Court, to set aside the verdict, as contrary to the evidence.

MINE ACCIDENTS.

Charlestown United Mines, St. Austell.—As W. Hobba and J. Smith were at work underground, a scale of ground fell, killing Hobba, and injuring Smith.

Cairnery Quarry, near Aberdeen.—A quarryman was killed by a fall of earth.

Runcorn, Lancashire—W. Lamb was killed in one of the Weston stone quarries

Morice Town, near Plymouth.—J. Ellis was seriously injured by a fall of stone in Mr. Knowling's quarries.

Mr. Giles's Burnt Tree Colliery, Dudley.—J. Smith was killed by a fall of coal.

Pontypool.—A lad, named Jones, was killed by getting entangled in the cogs of a rolling-mill at the New British Iron-Works, Abersychan.

Merthyr.—T. Isaac was killed by a fall of rubbish in Cwmbargoed pits, Dowlais.

Cyfarthfa.—J. Phillips was killed by a fall of roof in the Drift Mine pits.

Moorseley Colliery.—J. DIXON, a trapper, aged 10 years, was killed here.

Dreadful Colliery Explosion—Five Lives Lost.—An explosion, attended with fatal consequences, took place on Wednesday morning in a fire clay pit, belonging to Messrs. Pemberton, coal and iron masters, on the high road between Bilston and Willenhall. It appears that, in consequence of the Easter-holidays, the miners had not been at work since Saturday, but that this morning they went to the pit for the purpose of resuming their labours; six men and boys were lowered down, but, previously, the "doggie" had cautioned them to remain quiet until he came down; instead of which, however, a man named Jones took his candle and went along the "Gate-roads;" he was urgently entreated not to do so, but, disregarding these injunctions, he continued his course, and had not proceeded more than six yards before the sulphur exploded—hurling the men at the bottom of the pit with much violence a considerable distance. Jones was killed on the spot; and out of six other men and boys, who were suspended at the top of the pit, four were killed—being blown in all directions. Several others are seriously burnt, but hopes are entertained of their ultimate recovery. The mine is a new one, and the accident is one of the most fatal and alarming which has occurred in the neighbourhood of Bilston for some time. Some idea may be formed of its nature, when it is stated that the explosion was heard above a mile and a-half from where it occurred, and that the fire actually blazed out of the shaft of the pit, which is from 80 to 90 yards deep, and its force shook all the buildings for a considerable distance around. It is proper to state, that the pit was well ventilated, and that the accident is not attributable to neglect on the part of the proprietors or "butties," but solely to the rash conduct of the man Jones. The names of the deceased are—W. Jones, A. Adkins, T. Vensome, J. Evans, and E. P. Bevington.

Heroic Conduct of a Miner—Narrow Escape of a Mine Surveyor.—A melancholy occurrence, resulting in the death of two miners, has just taken place near Wednesbury, which has excited a general feeling of sympathy, as one of the unfortunate sufferers sacrificed his life in an effort to rescue a fellow-creature from death. It appears that, on the afternoon of Thursday, the 2d of April, Mr. Thomas Bayley, mine surveyor, of Hocker-hill, descended one of the coal pits belonging to Horace St. Paul, Esq., in the parish of Sedgley, for the purpose of making a survey. Thomas Parkes, the "butty," or manager of the pit, accompanied him, and assisted in making the survey. On entering one portion of the mine, Bayley remarked that the pit was rather damp, to which Parkes replied that it was always so when the wind was in a particular point. He then took the tape which he held for the purpose of measuring round a bend in the pit, when he called out that it was very damp, upon which the surveyor cautioned him to be very careful, and not go into danger. He said that he could go without risk as far as the "hollows," and proceeded to this part of the pit, when suddenly the surveyor found the tape relax, and fearing that something was wrong, he called out to Parkes, but received no answer. He then advanced in the direction of the "hollows," when the light which he carried was extinguished by the foul air. Upon this he hastened from the spot, and having made an alarm, he was drawn up the shaft, when he procured assistance, and had a sluice cut, by which a quantity of water was poured down the pit from the canal close by, in order to save the poor fellow, and afford additional security to those

who might go to his assistance. Several miners then descended the shaft, and, amongst others, William Turley, who, although cautioned as to the existence of foul air, proceeded to the fatal spot where the unfortunate Parkes lay senseless, in the hope of rescuing him, and never returned alive; *the poor fellow fell a victim to his noble self-devotion!* By great exertions, and not without the most imminent danger, the bodies of the ill-fated miners were rescued by their companions, but life was quite extinct, although not more than 10 minutes had elapsed from the time that Turley entered the "hollows" till he was taken out a corpse. Parkes was a very careful and steady man, and no blame attaches to him as manager of the pit. An inquest was subsequently held on the bodies of the unfortunate men; when the facts having been given in evidence, a verdict of "accidental death" was returned.—*Wolverhampton Chronicle.*

Explosion of Fire Damp at Ringley.—An explosion of fire damp took place at the colliery of Messrs. Knowles and Scott, Ringley—by which one man was killed, and another severely wounded. It appears there are two coal pits, the workings of which extend into each other; the lower pit being under the bed of the River Irwell, which required the water to be kept low, to insure the ventilation of the higher one, for which purpose a man (Barratt) was employed to work the engine. It appears that Barratt neglected doing so; in consequence of which the lower pit became filled with water, forcing the foul air through the lower shaft into the higher workings; when an explosion took place. The men then at work made their way to the bottom of the shaft; but on arriving there, two men were much exhausted and scorched, one expired the next day, and the other lies in a very precarious state. An inquest has been held on the body—when the jury returned a verdict of manslaughter against Barratt.

Cwm Amman Anthracite Colliery—Miraculous Escape.—As the workmen in the employ of this company were on Tuesday last loading a schooner, they had placed the waggon on the stage, which projects over the wharf, and supported by chains, a man, named John Hugh, went behind to unfasten the linch-pin, when the chains gave way, and precipitated him, waggon and all, into the mud below, a depth of 30 ft., when, strange to say, though the man was under, he was so buried in the soft mud, as to have escaped with some severe bruises.

Flosypan Colliery, Merthyr.—W. Richards was injured by a fall of rubbish.

ON THE VENTILATION AND WORKING OF COAL MINES.

The following is an abstract of a paper on the ventilation and working of coal mines, with a view to the prevention of accidents from explosion, read by Prof. Ansted at the Royal Institution:—Mr. Ansted commenced by alluding to the extent and frequency of the accidents that occur, and then mentioned the position of the coal in beds, and the necessity of sinking deep shafts to obtain it: and alluding to the extent of the workings (often as much as 500 acres) in a single property, he explained that though in the deep mines of the north of England, it was impossible that the number of shafts should be greatly multiplied, still at least *two* were required, and ought to be insisted on. He then stated the principles of coal-working, with reference. 1st, to the tendency of the roof to fall in from pressure; and, 2d, the necessity of obtaining a current of pure air for the men; and described the different systems followed in various districts with this view. With reference to this part of the subject, he suggested the necessity of the extensive underground works being divided into districts, and provided with separate safe communication; so that, in case of an accident, those only from one district would suffer. Mr. Ansted then entered on the subject of the gas, and described the singing noise with which it is constantly given off, whenever a fresh surface of coal is exposed. He mentioned also the puffs of gas (*blowers*) which occasionally burst forth unexpectedly; and stated, that while the ventilation might and ought to get rid of the ordinary issue, no ventilation would suffice to clear the air of these quantities. He instanced the case of a recent explosion at Killingworth, and an accident some years ago at Jarrow, as examples of blowers; and then described the accumulation of gas in old workings, and in the broken roof, or *goaf*, as other sources of danger. The latter was the cause of the accident at Haswell, in September 1844. The methods adopted either to get rid of the gas or to light the mine, so as to avoid danger, were then alluded to. The advantage of *splitting* the air into several currents, instead of carrying one current through all the workings, was dwelt upon; and the improved condition of the ventilation of late years described. With regard to lights, the Davy lamp with a tin shield was mentioned as, on the whole, the best instrument that could be used, and as safe under all ordinary circumstances. Referring, then, to the condition of the coal-trade, and the difficulty of having any improvements introduced, or even of getting the best of the acknowledged systems adopted, Prof. Ansted dwelt on the necessity of legislative interference; not so much to insist on the adoption of any one plan, as to see that the plans acknowledged to be best were universally carried out. He dwelt especially on the great social duty of looking after and improving the condition of the miner; and concluded by insisting, that all mines subject to explosions should be submitted to the inspection of public officers, whose duty should be to see that precautions were taken for the safety of the miner.

Mining Company of Ireland.—On Thursday, the Barons of the Exchequer pronounced a decision in a case of great importance to this company, which has been pending for some time. A Mr. Howlin, in the county of Wexford, having interfered to stop their working on his land, the company took legal proceedings against him. He raised a point of law, impugning their Deed of Incorporation, and it was apprehended that a decision in his favour might be made, which would have most injurious effects upon the company, not only giving a technical legal advantage to persons either in their debt, or disposed to question their right in any way, but also render an entirely new deed necessary. The Court of Exchequer has set the matter at rest by unanimously declaring in favour of the company. This decision must have a beneficial effect upon the marketable value of their shares.

General Mining Company for Ireland.—We are glad to find that this company have commenced active operations on the valuable Shallee Lead Mines, between this and Limerick, purchased by the company from Mr. T. Maguire. Mr. St. Pierre Foley, in a report on these mines, says:—"That East and West Shallee were of immense value, and that the lead ore contained 45 per cent. of silver." Thus we shall have the mineral treasures of this district disclosed by this new and enterprising company, formed under the Act of Victoria, giving limited liability to shareholders. The committee in Dublin is composed of able men, having for managing director, Dr. Brady, of North Frederick street (whose scientific attainments are so well known), and who has, at a great sacrifice, notwithstanding his extensive professional practice, consented to act as managing-director. We expect the shareholders will reap a rich harvest.—*Nenagh paper.*

Important Discoveries of Mineral Wealth in the North of Ayrshire.—We understand that Mr. Dixon, of Glasgow, has become lessee of part of an extensive mineral field situated near Beith. The ore purposed to be wrought is a species of brown hematite, yielding sometimes as high as 50 per cent. of pure iron; it exists in immense abundance, forming strata of many feet in thickness, throughout the parishes of Beith, Kilbirnie, and Dalry. In the latter parish, on the farm of Howrat, the property of Capt. Blair, of Blair, it forms a strata of from 15 to 20 feet thick. We believe that the first discoverer of the importance of this mineral was John Jack, Esq., manager of Eglinton Iron Works—a gentleman whose great experience, and scientific knowledge, have done much to develope the mineral wealth of this district.—*Ayr Advertiser.*

Mineral Wealth of South Africa.—The mineral wealth of this vast region is yet to be discovered. Indications of metallic ores are known to abound. Iron is everywhere abundant. Manganese a common article. Copper of the richest description is to be found at a short distance beyond the Orange river; and there is little doubt that, if scientific persons were sent out, resources of a most important kind would be found in this great field of investigation. Lead of a superior kind has long been known to exist near the mouth of the Van Staaden's river, in the district of Uitenhage. Barrow, I believe, was the first to bring it into notice. At page 92 of his first volume of *Travels in South Africa*, he states the interesting fact, that it had been analyzed by a Major Van Dehn, and the result was, that every 200 lbs. of ore gave 1000 lbs. of pure lead, and 8 ozs. of silver. Lead ore, as found in England, cannot compare with this, if the estimate be correct. The amount of silver, always an accompaniment of lead ore, obtained from the lead found in the mines of Derbyshire and Shropshire, give 1 oz. to 1½ oz. of silver per ton; that derived from the mines of Devon and Cornwall, 20 ozs. to 30 ozs. per ton, and the average of all other mines vibrates between these two extremes. The Van Staaden's veins, by Van Dehn's assay, therefore, more than quintruples the highest average of the richest lead mines of England. Lead mines, wherever they occur, generally lie deep, and are attended with much expense in working. At Van Staaden's on the contrary, the metallic vein lies on the surface, and, being surrounded with abundance of fuel, it has always been imagined could be worked at a comparatively small cost. The preceding observations have been elicited by the fact, that the Van Staaden's lead mine is at last likely to be brought into active use. A recent emigrant, Mr. Bevan—a gentleman said to be familiar with mining operations—has visited the spot, to which he was directed by Mr. Chase's work on the eastern province. Satisfied with the indications he found, he has been induced to purchase the farm for 1650*l.*, and has already a party employed to collect the ore. It is said that he has since discovered a lode of native lead, one of the rarest productions of Nature, and which hitherto, it is believed, is only to be procured from Madeira, and at Alston, in Cumberland.—*Graham's Town Journal.*

American Gold Mines.—The produce of gold in the two Carolinas is on the continued increase. The quantity brought into the Mint in 1843 amounted to the value of 272,000 dollars. The state has recently turned to account the sands of the river Catawba, flowing through the gold district. A private individual, named Gibson, has obtained from it the proprietorship of the soil lying *below* the waters of the stream. The sand is withdrawn from the bed of the river by means of long-handled ladles of peculiar construction, for which Mr. Gibson has taken out a patent. Each evening, the sand and gravel are washed on the banks, amalgamated by means of mercury, and the amalgamated gold forwarded to the Mint,—where it has been recognized as very pure. This gold seems to come from a mine of brown hematite, lying in the district of Centerville, near the Falls of the Catawba, and in the immediate neighbourhood of a coal mine.—*Athenæum.*

Current Prices of Stocks, Shares, & Metals.

STOCK EXCHANGE, Saturday morning, Twelve o'clock.

Bank Stock, 7 per Cent., 205 6 5
3 per Cent. Reduced Ann., 94¾ ¼ ⅓
3 per Cent. Consols Ann., 95⅛ ¼ ⅜
3 per Cent. Annuities, 94¾
3½ per Cent. Ann., 96⅛ ⅜ ½
Long Annuities, 10 1-16
India Stock, 10½ per Cent., 259½ 8
3 per Cent. Consols for Acc., 96 ⅛
Exchequer Bills, 1000*l.*, 19 20 pm.

Belgian Bonds, 4½ per Cents., 98
Dutch. 2½ per Cent., 59½
Brazilian, 5 per Cents., 81½ 2
Chilian, 6 per Cents., 96½
Mexican, 5 per Cents., 31½ ½
Spanish, 5 per Cents., 25
Ditto Deferred, 16¾ ¼
Portuguese, 5 per Cents., 81
Russian, 5 per Cents., 111

Mines.—Some considerable business in the mining share market has been transacted during the week, and a few of the foreign shares, as well as the Cornish mines, have met a better price. Bolanos, United Mexicans, Real del Montes, St. John del Reys, Cocaes and Copiapos, have changed hands; whilst the following home mines have been transferred—viz., Holmbush, Treleigh, Treviskey and Barrier, West Trethellan, South Trelawney, South Basset, West Wheal Jewel, Wheal Gill, Wheal Mary Anne, West Wheal Maria, Wh. Mary (Calstock), Lamerhooe Wheal Maria, and Combmartin.

Railway scrip of the heavier description of lines maintained their prices; and at the early part of the week, purchases were confined to those companies likely to wind up, but towards the close a shyness prevailed for winding up scrip, except where known how much would be devided, and other shares in general began to find a fair market.

Requisitions have been prepared at Cork, for signature, among the shareholders of the following lines:—Irish North Midland; Great County Down, Cork Passage, and Kinsale; Cork and Killarney; Templemore, Nenagh, and the Shannon; Newry, Armagh, and Londonderry; Great Munster; Killarney Junction; and Clonmell and Thurles. The Ramsgate branch of the South Eastern Company, opened on Monday.

Meetings.—Rugby and Oxford, of the Banbury committee, to communicate with Great Western Company on the delay in commencement. Mr. Saunders, in the correspondence between them, has assured them the delay has arisen from causes over which they had no control: committee protested against further delay, and call upon the company to proceed at once.—North and South Wales: A meeting on Tuesday, to wind up, and hear financial statement;—amount of deposits and interest, 64,248*l.* 10s. 1d.; less broker's commission, 1102*l.* 5s. 8d.—making 63,146*l.* 4s. 5d.; total expenditure, leaving liabilities, of 5921*l.* 15s. 5d.; dividend to divide, 11s. per share.—Edinburgh and Leith Atmospheric, on Tuesday, to consider if the undertaking should proceed; after a motion for winding up and returning deposits, an amendment was carried, enabling the directors to proceed with their bill, but not to proceed with works, until six months after passing, when they are to call another meeting.—Grand Junction, yesterday, for submitting drafts of bills for the following purposes:—Consolidating the London and Birmingham, Grand Junction, and Manchester and Birmingham; junction from Liverpool and Bury to North Union; the latter to the Manchester, Bolton, and Bury; a pier, &c., at North Meols; for vesting in the Grand Junction, &c., the North Union property; branch from the Oxford and Wolverhampton, and the Midland Railway; branch from Wednesbury to Bilston; ditto from Grand Junction to Portobello—ditto from Willenhall to the Wyrley and Essington Canal; and to enable Lord F. Egerton to construct a railway from Runcorn to the Grand Junction, near Preston Brook.

Cornwall and Devon Central Railway Company.—A meeting of the shareholders in this company was held yesterday, at the London Tavern, for giving the opportunity to those who wished to withdraw from the undertaking, to pass resolutions to that effect.—Mr. Clipperton, the solicitor, who called the meeting, which consisted of very few scripholders, addressed those present, in favour of immediately dissolving the affair: the few proprietors in attendance, however, appeared to consider the meeting quite irrelevant; and although they were generally in favour of taking the necessary steps for a dissolution, it was resolved to adjourn until the 30th inst.; when a regular meeting will be called by the directors.

Special Railway Acts.—Numerous important special acts, authorising the construction of railways, passed in session 1845, and hitherto existing only in scattered and separated forms, have been thrown into the compass of two valuable volumes, by Messrs. Bigg, the Parliamentary publishers; they present a complete epitome of the enactments of railway legislation during the most productive periods of its progress, and will prove indispensable companions wherever railway economy is looked upon as of practical utility. The collection is a compact incorporation of 120 Acts passed last session—48 of which authorised the construction of new railways, 32 of independent companies, and 26 in connection with existing companies; 47 Acts authorised branches or extensions, and 15 the raising of additional capital, the amalgamation or leasing of lines, or the amendment of previous Acts. The total capital authorised to be raised under all of them was 61,357,374*l.* for constructing 2746 miles. In passing over the pages, we were struck by the following table of variations in the maximum charges authorised by the special Acts passed last session:—

	Lowest maximum charge.	*Highest maximum charge.*
Animals, per mile—		
Horses	3*d*	6*d*
Sheep	½*d*	2½*d*
Carriages, per mile	4*d*	10*d*
Goods, per ton per mile—		
Coals	1*d*	4*d*
Corn	1½*d*	6*d*
General merchandise	2½*d*	6*d*
Passengers, per mile		
First class	2*d*	4*d*
Second class	1½*d*	3*d*
Third class	1*d*	2½*d*

Railway Traffic.—From our official returns it appears that the amount of traffic for the last week, on nearly 1800 miles of railway, was 124,359*l.*, thus accounted for:—69,096*l.* for the conveyance of passengers only, 33,958*l.* for the carriage of goods, and a remainder of 21,305*l.* for passengers and goods together, not respectively apportioned; being an increase over the corresponding week of last year of 18,308*l.*—*Railway Chronicle* of this morning.

Messrs. Lamond's Sales.—Tuesday.—London and York (2*l.* 10s. pd.), 1*l.* 5s.; Cornwall (5*l.*), 1*l.* 11s. 6d.; South Midland (2*l.* 2s.), 1*l.* 17s.; Manchester, Buxton, and Matlock (2*l.* 2s.), 2*l.* 3s. 6d.; North Staffordshire, Churnet, and Potteries (2*l.* 2s.), 2*l.* 3s.; Manchester and Southampton (2*l.*), 1*l.* 5s.; West Riding Union (2*l.* 2s.), 3*l.* 8s. 6d.; South Staffordshire (2*l.* 10s.), 1*l.* 15s. 6d.; Dunstable, London, and Birmingham (5*l.* 5s.), 4*l.*; Paris and Strasburgh Constituted (5*l.*), 5*l.* 16s.; Bordeaux, Toulouse and Cette—Espelette's (2*l.*), 2*l.* 2s.; London and Manchester—Rastrick's (5*l.* 5s.), 3*l.* 12s.; Buckinghamshire (2*l.* 2s.), 1*l.* 4s. 6d.

Friday.—North British—Carlisle Extension (1*l.* 5s.), 1*l.* 15s.; London and Blackwall—new (2*l.* 10s.), 3*l.* 15s.; Vale of Neath (2*l.*), 1*l.* 3s. 6d.; South Eastern and Dover—No. 4 (9*l.* 10s.), 2*l.* 1s.; Bordeaux, Toulouse, and Cette—Espelette's (2*l.*), 2*l.* 2s.; Paris and Strasburgh Constituted (5*l.*), 5*l.* 12s.; South Midland (2*l.* 2s.), 1*l.* 18s.; Manchester and Southampton (2*l.*), 1*l.* 5s. 6d.; London and Manchester—Rastrick's (5*l.* 5s.), 3*l.* 12s.; North Kent (2*l.* 10s.), 1*l.* 8s. 6d.; Great Kent Atmospheric (2*l.* 10s.), 1*l.* 12s.; Manchester, Buxton, and Matlock (2*l.* 2s.), 2*l.* 5s. 6d.; Guildford, Fareham, and Portsmouth (5*l.*), 4*l.* 11s.; Leeds and York (2*l.* 12s. 6d.), 1*l.* 7s.

Hull, Thursday.—The transactions since our last have been to a limited extent, and prices almost stationary. This week has been marked by three railway meetings—the first, for general purposes, with regard to the new schemes, on Monday, at the Town Hall, was rather numerously attended. Arrangements have already been made by the committee, then and there appointed—and which may, perhaps, not inappropriately, be called the "railway relief" committee—to carry out the objects of the meeting. A meeting of the scripholders of the Leicester, Tamworth, Coventry, &c., was held yesterday morning, which, although not large, was eminently influential in its character and composition. At the request of the meeting, the chairman agreed to place himself in communication with the executive, in order to ascertain the present position of the scheme and its prospects. The other meeting (East Coast) was held last evening, at the Stock Exchange—although the room was not so well filled as at the first meeting of the scripholders of this project, a fair number of shares was represented. A gentleman, officially connected with the line, was present, and afforded some statistical information with much candour and straightforwardness, and to whom the thanks of the meeting were accorded. There could not, however, be any difference of opinion as to the course to be pursued with regard to this line at all events. Petitions, praying that the bill may be stopped, are in requisition, and will in due time be forwarded to the Members of the borough for representation. Much attention is given to the Barnsley Junctions; and that meeting (should there be one) will, doubtless, be interesting. The report of the amalgamation committee is rather an important document—to sanction amalgamation where the lines are continuous, and to disprove where they are competing, seem to be the chief suggestions.

COAL MARKET, LONDON.

PRICE OF COALS PER TON AT THE CLOSE OF THE MARKET.

MONDAY.—Holywell Main 16—New Tanfield 13 6—Ord's Redheugh 13 6—Townley 14—West Hartley 17 6—Wylam 14 3—Wall's End Gibson & North Durham 15—Wharncliffe 16 3—Hetton 18—Lambton 17 9—Russell's Hetton 17 6—Adelaide 17—Barrett 16 6—Seymour Tees 16 6—West Hetton 15 9—Cameron's Coalbrook Steam 23—Sidney's Hartley 17 6—Killingworth 15 6.—Ships at market, 23—all sold.

WEDNESDAY.—Hastings' Hartley 17 6—Wall's End Gibson and North Durham 15 6—Killingworth 16 3—Belmont 17 6—Braddyll's Hetton 18—East Hetton 16—Shotton 17 6—Stewart's 18 6—Ludworth Steam 17 9—Hartlepool 18 3—Heugh Hall 16 3—Kelloe 18—Adelaide Tees 17 6—Barrett 16 6—Brown's Deanery 16 6—South Durham 16 6—Tees 17 9—Lewis's Merthyn 23—Sidney's Hartley 17 6.—Ships at market, 34—all sold.

FRIDAY.—Original Tanfield 14—Taylor's West Hartley 17 3—West Hartley 17 6—West Wylam 14 6—Wall's End Hebburn 16—Hilda 16 6—Killingworth 16 6—Riddell's 16 9—Wreckington 14 6—Eden Main 17 3—Braddyll's Hetton 18 6—Haswell 18 9—Hetton 18 6—Lambton 18 3—Russel's Hetton 18—Shotton 17 9—Stewart's 18 6—Kelloe 18 3—Trimdon 18—Thornley 17 3—Gordon 16—Seymour Tees 17—St. Helen's 16 3—West Tees 16.—Ships at market, 46.

Workington Colliery.—An entertainment was given at the New Crown Inn, to the tradesmen of Workington, to celebrate the "winning" of the large seam of coal on the estate of H. Curwen, Esq., by Mr. A. Penrice; on the following day, the colliers, between 200 and 300, were regaled by the lord of the manor, with substantial fare at the Assembly Room, under the presidency of E. S. Curwen, Esq., and subsequently between 50 and 60 colliers and their wives had an opportunity of enjoying themselves at an evening entertainment.

RAILWAY SHARE LIST.

RAILWAYS.	*Paid*	*Closing pr. last week.*	*Closing pr. last night.*
Aberdeen	£10	2¼	3¼
Amber, Nottingham, Boston, and Erewash Junction	2½	1¾	1¾
Armagh, Coleraine, and Portrush—25*l.* shares	1¼	⅛	⅛
Birmingham and Gloucester—100*l.* shares	100	124	124
Birmingham and Oxford Junction—20*l.* shares	2	1¼	1¼
Bristol and Exeter—100*l.* shares	70	84	84
Bristol and Gloucester—50*l.* per share	30	47½	48
Caledonian—50*l.* per share	5	7¼	6¼
Cambridge and Lincoln—25*l.* shares	1¼	—	—
Chelmsford and Bury	1¼	⅛	—
Chester and Holyhead—50*l.* shares	15	17½	18
Cork and Killarney—50*l.* shares	2½	—	—
Cork and Waterford—25*l.* shares	1¼	⅛	¼
Cornwall—50*l.* shares	5	1¼	—
Derby, Uttoxeter, and Stafford	2½	—	—
Direct Northern—50*l.* shares	2½	1½	1½
Direct Manchester (Remington's)—20*l.* shares	2½	⅛	⅛
Ditto Rastrick's	5½	3½	3⅝
Dublin and Belfast Junction—50*l.* shares	10	4	4
Dublin, Belfast, and Coleraine—50*l.* shares	2½	—	—
Dublin and Galway—50*l.* shares	4	1½	—
Dundalk and Enniskillen—50*l.* shares	2½	—	—
Eastern Counties—25*l.* shares	14*l.* 16*s.*	21½	22½
East Lincolnshire	1¼	⅛	⅛
Edinburgh and Glasgow—50*l.* shares	50	72	71½
Edinburgh and Perth	3	2½*	—
Exeter, Yeovil, and Dorchester—50*l.* shares	2½	1	—
Goole and Doncaster—20*l.* shares	42*s.*	⅛ dis.	⅛ dis.
Grand Junction—100*l.* shares	100	—	—
Grand Union (Nottingham and Lynn)	1¾	¼	¼
Great Grimsby and Sheffield—50*l.* shares	5	—	—
Great Southern and Western (Ireland)—50*l.* shares	15	20½	21⅝
Great North of England—100*l.* shares	100	210	215
Great Western—100*l.* shares	80	145	145
Guildford, Farnham, and Portsmouth—50*l.* shares	5	4¼	—
Hull and Selby—50*l.* shares	50	101	100½
Isle of Axholme	2½	—	—
Lancaster and Carlisle—50*l.* shares	25	—	50½
Leeds and Carlisle	2½	—	—
Leicester and Birmingham—20*l.* shares	22*s.*	—	—
Leicester and Bedford—20*l.* shares	22*s.*	⅛ dis.	⅛ dis.
Leicester and Tamworth—20*l.* shares	42*s.*	—	1 dis.
Liverpool and Leeds Direct—50*l.* shares	2½	2¼	—
Liverpool, Manchester, and Newcastle Junction	1½	1¼	—
London and Birmingham	stock.	222	223
London and Birmingham Extension—25*l.* shares	1½	—	—
London and Blackwall	Av. 16*l.* 13*s.* 4*d*	7⅝	8
London and Brighton—50*l.* shares	50	62½	63
London and Croydon	Av. 13*l.* 15*s.* 9*d*	21	22
London and Greenwich	Av. 12*l.* 15*s.* 4*d*	9¼	9½
London and South Western	Av. 41*l.* 6*s.* 10*d*	76¼	76¾
London and York—50*l.* shares	2½	1¼	1⅝
London, Warwick, and Kidderminster—50*l.* shares	2½	1¼	—
London, Salisbury, and Yeovil—50*l.* shares	2½	1	—
Londonderry and Coleraine—50*l.* shares	2½	4	3¾
Londonderry and Enniskillen—50*l.* shares	5	—	—
Lynn and Ely—25*l.* shares	5	7	6½
Lynn and Dereham—25*l.* shares	5	—	7
Manchester and Leeds—100*l.* shares	82	120	122
Manchester and Birmingham—40*l.* shares	40	75½	77
Manchester, Buxton, and Matlock—20*l.* shares	42*s.*	⅛ dis.	¼ pm.
Manchester and Southampton	2	1¼	1¼
Midland	Stock	143½	144
Ditto Birmingham and Derby	Stock	114½	—
Midland Great Western (Irish)—50*l.* shares	2½	2¼	—
Newcastle and Berwick—25*l.* shares	10	18	18
Newcastle and Carlisle—100*l.* shares	100	—	—
Newcastle and Darlington Junction—25*l.* shares	25	43	43½
Ditto New (Brandling)—25*l.* shares	20	42	—
Newport and Abergavenny	2½	—	—
Newry and Enniskillen—50*l.* shares	2½	—	—
Newark, Sheffield, and Boston—25*l.* shares	2½	1¼	1½
North British—25*l.* shares	17½	23½	25⅝
North Devon	2	—	—
Northern and Eastern—50*l.* shares	45	67	70
North Kent and Direct Dover—50*l.* shares	2½	1¼	1⅝
North Staffordshire—20*l.* shares	42*s.*	2	2¼ pm.
North Wales—25*l.* shares	3½	—	—
Norwich and Brandon—20*l.* shares	18	22⅝	23½
Northampton, Banbury, and Cheltenham	2	1	¼
Oxford, Worcester, and Wolverhampton	12½	8¼	7¼
Perth and Inverness	2½	1¼	—
Portsmouth Direct—50*l.* shares	3⅝	1⅝	2½
Preston and Wyre—50*l.* shares	50	—	33½
Richmond—20*l.* shares	5	15	—
Rugby and Huntingdon—20*l.* shares	2	1	1
Scottish Central—25*l.* shares	7½	13½	13
Scottish Midland—25*l.* shares	5	6	6
Sheffield and Manchester—100*l.* shares	100	—	—
Shrewsbury and Birmingham	2½	1⅝	1⅝
Somersetshire Midland	2½	—	—
South Devon—50*l.* shares	25	32	—
South Eastern and Dover	Av. 35*l.* 2*s.* 4*d*	35	36
South Midland—20*l.* shares	42*s.*	⅛ dis.	⅛ dis.
South Wales—30*l.* shares	5	1	1⅛
Staines and Richmond—20*l.* shares	1	¼	—
Trent Valley—20*l.* shares	5	—	—
Trent Valley and Holyhead Junction—20*l.* shares	2½	—	—
Vale of Neath	2	1½	1½
Waterford and Kilkenny—20*l.* shares	3	—	—
Welsh Midland	2½	1	1
Wilts, Somerset, and Weymouth—50*l.* shares	20	2½	3
Yarmouth and Norwich—20*l.* shares	20	24½	25½
York and Carlisle	2½	1⅝ dis*	1⅛
York and North Midland—50*l.* shares	50	96	97
Ditto Selby—50*l.* shares	30	71½	72
FOREIGN RAILWAYS.			
Boulogne and Amiens—20*l.* shares	10	11⅝	12
Bordeaux and Toulouse and Cette (Mackenzie)—20*l.* shares	2	1⅝	1⅝
Bordeaux, Toulouse, and Cette (Espalete)—20*l.* shares	2	2⅛	—
Central of Spain—20*l.* shares	2	—	—
Dutch Rhenish—20*l.* shares	5	5⅝	6
East Indian	¼	⅛	⅛
Great Northern of France (constituted)	5	15	14⅝
Great Western Bengal	¼	⅛	—
Great Western Canada—22½*l.* shares	3½	4	—
Jamaica and South Midland Junction—20*l.* shares	1	—	1⅛
Jamaica North Midland	1	—	—
Louvaine and Jemappe—20*l.* shares	4	1½	—
Lyons and Avignon—20*l.* shares	2	2	2
Luxembourg	4	1⅛	1⅛
Namur and Liege—20*l.* shares	4	1⅛	1⅛
Orleans and Vierzon—20*l.* shares	10	16⅜	—
Orleans and Bordeaux—20*l.* shares	6	10⅛	10⅛
Paris and St. Quentin—20*l.* per share	2	—	—
Paris and Orleans—20*l.* shares	20	48½	48⅜
Paris and Rouen—20*l.* shares	20	40½	40
Rouen and Havre—20*l.* shares	18	29½	29⅜
Sambre and Meuse—20*l.* shares	6	2⅝	5
Strasburg and Basle—14*l.* shares	14	—	—
West Flanders	4	2	2¼

* Prices obtained from country brokers—no business doing in the London market.

RAILWAY TRAFFIC RETURNS.

Name of Railway.	Lgth. Rway.	Present actual cost.	Last Div.	*Traffic Returns.* 1846	1845
Arbroath and Forfar	15	£140,782	3½ p.c.	£228 0 0	£215
Chester and Birkenhead	15	589,632	2¼	751 18 6	569
Dublin and Drogheda	32	631,258	4	610 6 4	658
Dublin and Kingstown	6	349,736	9	853 13 0	748
Dundee and Arbroath	17	153,598	6	252 5 5	294
Durham and Sunderland	19	302,118	2	541 3 3	530
E. Counties & North. & East.	124½	4,090,328	5	8146 13 11	4566
Edinburgh and Glasgow	46	1,686,226	6	3368 14 4	2625
Glasgow, Paisley, and Ayr	51	1,104,773	6	2246 3 0	1655
Glasgow, Paisley, & Greenock	23	806,134	2	942 8 7	825
Grand Junction Company *	119	2,597,317	10	—	8924
Gravesend and Rochester	7	85,000	5	280 2 4	—
Great North of England	45	1,296,196	6	—	1823
Great Western	220	8,179,980	8	18776 14 9	15750
Hartlepool	—	—	—	782 17 9	—
London and Birmingham†	176	7,417,217	10	33607 7 7	18034
London and Blackwall	4	1,078,851	1½	962 1 7	837
London and Brighton	69	2,653,673	7	5080 19 5	3731
London and Croydon	10	842,592	2½	1705 8 0½	1115
London and South-Western	93	2,620,724	10½	6401 14 11	5964
Manchester and Birmingham	31	2,197,585	6	4005 7 0	3618
Manchester & Leeds	51	3,972,869	8	—	7054
Manchester, Bolton, & Bury	10	842,725	6½	1048 17 2	868
Midland Company	179	6,636,105	6	16165 8 9	10722
Newcastle and Carlisle	65	1,137,385	5	1662 18 11	1367
Newcastle and Darlington	22½	1,272,031	2	2752 18 4	1295
Newcastle and North Shields	7	316,369	5	443 1 3	358
Norfolk	59	573,818	—	1404 11 11	—
North Union, Bolton &c.§	32	1,060,551	6½	—	1391
Preston and Wyre	22	432,014	2	503 6 6	406
Sheffield and Manchester	19	1,313,225	2½	1596 0 5	668
South-Eastern and Dover‡	103	4,284,924	3½	7063 6 8	4911
Taff Vale	30	648,348	5	1075 5 5	931
Ulster	25	358,353	3½	759 12 5	627
Yarmouth and Norwich‖	20½	250,037	5	—	243
York and North Midland	53	1,632,689	10	4920 10 5	2550
Paris and Orleans	82	2,089,916	6	—	5629
Paris and Rouen	84	1,298,306	9	5086 0 0	5082

* The traffic return of this company is now included in the London and Birmingham.
† Including the Grand Junction Company. ‡ Including the Greenwich line.
§ Included in the Manchester and Leeds. ‖ Included in Eastern Counties.

PRICES OF MINING SHARES.

BRITISH MINES.

Shares.	Company.	Paid.	Price.
235	Andrew and Nangiles	25½	50
1000	Barristown	4	22
4000	Bedford	2½	5½
128	Besore Lead Mine	—	35
390	Birch Tor Tin Mine	10½	12
8000	Blaenavon	50	40
100	Botallack	175	300
120	Brewer	—	25
10000	British Iron, New, regis.	10	19
—	Ditto ditto, scrip	10	21
128	Budnick Consols	—	30
100	Bwlch Cwmerfin	20	200
1000	Callington	19	30
256	Caradon Consols	45	55
256	Caradon Copper Mine	9½	8
256	Caradon Mines	4½	36
256	Caradon United	19	20
256	Caradon Wh. Hooper	11	15
1000	Carn Brea	15	130
114	Charlestown	—	240
236	Chyprazé	—	18
1900	Combmartin	5½	4½
128	Comfort	—	42
5000	Con. Tretoil Mining Ass.	3½	1½
128	Condurrow	41	55
2560	Cook's Kitchen	—	6
1000	Copper Bottom	1	5
3200	Cornubian Lead Co.	3	—
1024	Cosheen	4½	25
240	Craddock Moor	9	30
128	Creeg Braws	120	60
500	Cubert Mine	10	26
1024	Devon & Courtney Con.	2	3½
1000	Dhurode	2	5
186	Dolcoath	—	80
10000	Durham County Coal	45	9
128	East Pool	5	35
9000	East Tamar Consols	1½	3⅝
—	East Wheal Albert	1	3
256	East Wheal Alfred	6⅛	55
94	East Wheal Crofty	—	450
256	East Wheal Kitty	¼	¼
128	East Wheal Rose	50	1250
123	East Wheal Seton	2½	12
512	Fowey Consols	—	80
20000	Galvanised Iron Co.	10	10
10000	Gen. Mining Co. for Irel.	¼	¼
1000	Godolphin	—	35
256	Gonamena	19	125
128	Gover	23	200
244	Grambler & St. Aubyn	—	30
100	Great Consols	1000	400
256	Great Culestick Moors	—	12
2560	Great Mitchel Consols	—	2
100	Grogwinion	5	20
1000	Gunnis Lake	1½	3
128	Hallenbeagle	—	50
1000	Hanson	5	3
1000	Harrowbarrow Old Mine	2½	3
1000	Harrowbarrow Consols	2½	2
800	Hawkmoor	3	6½
6000	Heigneton Down Con.	1	2
256	Herodsfoot	9	12½
10000	Hibernian	12½	1
1000	Holmbush	14	26
256	Ivy Tor	1½	2½
1200	Kirkcudbrightshire	1½	½
2048	Lamerhooe Wh. Maria	2½	6½
128	Lanarth & Penstruthal	—	150
2048	Lanivet Consols	2	5½
200	Larkholes	1	3
160	Levant	—	150
1000	Lewis	12	3
128	Ludcott	3	3
2800	Marke Valley	10	3½
20000	Mining Co. of Ireland	7	13½
1000	Nant-A'r-Nelle	2	2½
200	Nanterrow Consols	10½	12
128	New East Crowndale	7½	7½
128	North Fowey Consols	10	25
100	North Pool	11	40
70	North Roskear	10½	440
256	North Treburget	2½	4
100	North United	41	20
128	North Wh. Providence	2½	10
256	North Wheal Rose	26½	39
15000	Northern Coal Co.	23	2
600	Old Delabole Slate Co.	25	45
128	Par Consols	—	500
256	Penhallow Moor	15	5
100	Penrliw	30	65
128	Pen-y-Cefn Mine	50	55
1280	Perran St. George Un.	13	20
512	Plymouth Wh. Yeolland	1½	3½
10000	Rhymney Iron	80	33 4
256	Rose Consols	10	7
1000	Rosewall Hill	1	3
1024	Roscarrock	2½	2
2500	Silver Valley	2	2
256	Sourton Consols	3½	5
128	South Caradon	5	460
260	South St. George	9½	16
200	South Harvannah	23	26
800	South Towan	10	1½
256	South Trelawney	8½	17
128	South Yeoland	16½	26½
128	South Wheal Basset	—	180
124	South Wh. Francis	—	100
1034	South Wh. Maria	—	2
15000	Southern & Western, Irish	—	—

BRITISH MINES—*continued.*

Shares.	Company.	Paid.	Price
256	South Wheal Rose	2	3
256	St. Austell Consols	6	25
1000	Stray Park	43	23
9600	Tamar Consols	3	6
6000	Tincroft	7	14
256	Ting Tang	67	30
128	Tokenbury	124	58
1024	Trelawney Consols	1½	1
5000	Treleigh Consols	6	3
256	Trenow Consols	—	170
96	Tresavean	10	250
190	Trethellan	5	50
120	Treviskey and Barrier	61	130
128	Trowavas	—	30
128	Trewellard	12	25½
4000	United Hills	5	4½
100	United Mines	300	900
128	West Basset	10	20
256	West Caradon	20	340
128	West Cargoll	2	15
512	West Fowey Consols	40	35
—	West Kekewich Consols	—	3⅜
256	Wheal Kekewith	4	15
256	West Providence	—	10
200	West Seton	—	50
120	West Trethellan	5	37½
256	West United Hills	1½	8
256	West Wh. Friendship	3	10
3845	West Wheal Jewel	11	2½
2560	West Wh. Maria	¼	3
2560	West Wh. Mitchell	—	2
256	West Wheal Sheppard	—	10
256	West Wheal Tolgus	21½	20
256	West Wheal Treasury	12	12
240	Westerlake	3	3
6000	Wicklow Copper	5	12½
256	Wheal Albert	10	12
128	Wheal Acland	13	4
256	Wheal Allen	⅛	4
368	Wheal Anderton	10½	11½
128	Wheal Ann	—	50
256	Wheal Blencowe	—	20
256	Wheal Boscastle	3½	9
236	Wheal Byon	⅛	3
128	Wheal Catherine	5½	10
256	Wh. Cleveland	2½	5
68	Wheal Clifford	—	450
1024	Wheal Concord	3½	5
256	Wheal Fortescue	3	20
384	Wheal Franco	22	42
256	Wheal Gill	17½	30
1000	Wheal Harriet	1	—
128	Wheal Henry	—	5
109	Wheal Hope (Zennor)	23	25
256	Wheal Hope	7	1½
256	Wheal Jane	6	35
265	Wheal Kendall	11½	5
1024	Wheal Maria	1	700
4000	Wheal Martha Consols	4	4
256	Wh. Mary Ann	5	73
1024	Wh. Mary (Calstock)	2½	1½
256	Wheal Mary Consols	15	14
256	Wh. Mexico	3	6
256	Wheal Norris	9	10
128	Wheal Penrose	—	5
128	Wheal Pollard	9½	30
128	Wheal Prospect	4	9
128	Wheal Providence	4	—
128	Wheal Reeth	1	60
256	Wheal Robins	13	5
128	Wheal Rose	40	20
256	Wheal Salusbury	13	5
512	Wheal Sarah	2½	5
99	Wheal Seton	150	810
256	Wheal Sisters	25½	80
128	Wheal St. Cleer	21½	50
260	Wheal Trelawny	7½	370
256	Wheal Trevenna	4	4
256	Wheal Trewennan	—	10
128	Wheal Venland	12½	20
256	Wheal Victoria	2	6
127	Wheal Virgin	—	20
1024	Wheal Walter	2½	4
256	Wheal Williams	4	10

FOREIGN MINES.

5000	Alten Mining Company	14½	1½
15000	Asturian Mining Co.	6	3
10000	Anglo-Mexican Co.	100	3
3374	Ditto Subscription	25	4
2000	Bolanos	150	4½
12000	Ditto Scrip	15	5
10000	Brazilian Imperial	21	4½
10000	Cata Branca (Braz. Co.)	6½	—
12000	Cobre Copper Co.	40	26
8500	Colombian Co. regis.	55	4½
5000	Ditto Scrip		
10000	Copiapo Mining Co.	14	2
20000	General Mining Ass'n.	20	14
5051	Mexican Company	59	6
12000	Mocaubas & Cocaes	25	8½
29320	Rl. del Monte, regis.	28½	32
	Ditto unregistered		32
	Ditto Red Debentures	—	19
	Ditto Black ditto	—	17
	Ditto Loan Notes	150	117
7000	Royal Santiago	10	16
2000	Pachuca Mines	3	3½
11000	St. John del Rey	15	8½
43174	United Mexican	28½	4½

*** *We should feel greatly obliged by agents, or others interested, furnishing us with such corrections for our Share List that we may not have received through our usual channels of information—our object being, to present as accurate a list of prices as can be obtained—to procure which, we solicit the aid of correspondents in general.*

LATEST CURRENT PRICES OF METALS.

LONDON, APRIL 17, 1845.

	£	s.	£	s.	d.
Iron—Bars..Wales..*ton*	0	0—	8	5	0
„ ..London ..	0	0—	9	5	0
Nail rods „	0	0—	10	5	0
Hoop(Staf.) „	0	0—	11	5	0
Sheet „ „	0	0—	12	10	0
Bars „ „	0	0—	11	0	0
Welsh cold-blast foundry pig	4	10—	5	5	0
Scotch pig *b*, Clyde	0	0—	3	2	6
Rails	0	0—	10	5	0
Russian, CCND *c*	0	0—	16	0	0
„ PSI	0	0—	16	0	0
„ Gourieff	0	0—	14	10	0
„ Archangel	0	0—	13	12	6
Swedish *d*, on the spot	0	0—	11	10	0
„ Steel, fagt.	0	0—	16	0	0
„ „ kegs *e*	0	0—	14	15	0
Copper—Tile *f*	0	0—	92	0	0
Tough cake	0	0—	93	0	0
Best selected	0	0—	96	0	0
Copper—Ordin. sheets, *lb.*	0	0—	0	0	10½
„ bottoms .	0	0—	0	0	11½
Tin—Com. blocks *g* ..*cwt.*	0	0—	4	15	0
„ bars	0	0—	4	16	0
Refined	0	0—	4	18	0
Straits *h*	0	0—	3	19	0
Banca	0	0—	4	0	0
Tin Plates—Ch., IC *i*, *box*	0	0—	1	11	0
„ IX ...	0	0—	1	17	0
Coke, IC	0	0—	1	6	0
„ IX	0	0—	1	12	0
Lead—Sheet *k* .....*ton*	0	0—	20	0	0
Pig, refined	0	0—	21	0	0
„ common	0	0—	19	5	0
„ Spanish, in bd.	18	0—	18	10	0
„ American ...	0	0—	—		
Spelter—(Cake) *l*	0	0—	18	15	0
Zinc—(Sheet) *m* export.*	0	0—	30	0	0
Quicksilver n .....*lb.*	0	0—	0	4	6
Refined Metal ....*ton*	0	0—	—		

a Discount 2½ per cent. *b* Net cash. *c* Discount 2½ per cent. *d* Ditto. *e* In kegs ½ and ¼-inch. *f* Discount 3 per cent. *g* Ditto 2½ per cent. *h* Net cash. *i* Discount 3 per cent. *k* Ditto 2½ per cent. *l* Net cash. *m* Discount 1½ per cent. *n* Discount 1½ per cent. * For home use it is 32*l.* per ton.

[*From our Correspondent.*]

Iron—of all descriptions, is somewhat easier this week, and business has been limited—buyers holding back for farther decline. Scotch pigs are very depressed; sellers at 62s. 6d.—buyers at 60s. In foreign nothing new.

Copper and Tin Plates—as per last week's *Mining Journal*.

Tin—English, without change. A large parcel in second hands has been sold off rather under quotations, but has not affected the market prices. Foreign is 1s. to 2s. per cwt. lower this week.

Lead and Spelter—are a little easier than per last report, but a fair business has been done at quotations.

[*Communicated by Messrs. Whitcombe and Barton, Old Broad-street.*]

There is very little business doing in any description of English iron, and our quotations are merely nominal. Scotch pigs have been sold this week at 60s. cash, for all Nos., and to-day there are buyers at 62s. 6d., but no sellers under 65s. Two sales of spelter on the spot are reported this week at 18*l.* 15s. In other metals no alteration to report.

THE IRON TRADE.—The ironmasters held the last of their district quarterly meetings on Saturday last, at the Swan Hotel, Dudley, and, so far as the expressed determination of the large proprietors not to reduce the prices can be taken as a standard for the ensuing quarter, the quotations of the Birmingham meeting may be considered permanent. Nothing, however, but absolute necessity will induce some very large buyers to pay the present demand. Some gentlemen have withheld their orders, on the ground that the prices are such as to render it impossible for them to meet competition. On the other hand, the ironmasters say they cannot reduce; that, during the last two years, men's wages have been increased to a great extent, and that any attempt to reduce them now would only be attended with inconvenience and injury, without any actual necessity for it. It is also confidently expected, that the arrangements of the Government with respect to the proposed new railway bills will have a most beneficial effect, by cutting off all doubtful and unnecessary speculations, and facilitating the progress of those lines in this district which are held to be indispensably necessary, and for which large quantities of iron will be required.

GLASGOW PIG-IRON TRADE.

April 10.—No improvement can be quoted in this article—sales amongst speculators ranging from 62s. 6d. to 67s. 6d.—the former for low Nos., the latter for No. 1 quality. Makers seem firm at considerably higher quotations.—*National Advertiser.*

April 11.—Prices have had a downward tendency this week, and the market has closed very unsettled—sales of small lots having been reported to-day at 62s. 6d. in store, to 64s. free on board, for all No. 3; and 65s. in store, to 67s., for all No. 1, free on board—for cash. Low sales are also reported by some of the smaller makers, but the large makers are not disposed to sell at present rates, and some are preferring to reduce their number of furnaces in blast. The large quantities shipped, and in the course of shipping, have materially reduced the stocks; and, should these shipments continue for some time longer, must soon put a check to the fall in prices.—*Herald.*

April 14.—The price of Scotch pig-iron, delivered here, may be quoted to-day at 65s. for all No. 1, and 62s. 6d. for all No. 3, per ton—net cash. At these rates limited sales were made to-day. Market rather heavy, in consequence of the export orders falling off. Common bars, 9*l.* 10s.; railway bars, 10*l.* 10s.; railway chairs, 5*l.* 7s. 6d.—*Chronicle.*

LITERARY NOTICES.

Analysis of the Constant Supply System. By Thos. Wicksteed, C.E. London: J. Weale, Holborn.

This is a pamphlet, being an examination into the evidence in favour of the constant supply system, taken before the Health of Towns' Commissioners; it is from the pen of Thomas Wicksteed, Esq., the eminent hydraulic engineer, in which he shows that the "constant supply" system, as literally understood—viz., the abolition of all valves, or ball-cocks, to regulate the supply to the cistern, would add so enormously to the expense, that no companies could possibly exist, but under an enormously increased charge—while, by proper attention to the cisterns, or tanks, and careful regulation by the companies and landlords of poor tenements, a "constant supply," to all intents and purposes, may always be at hand in every house. As the subject is of such public importance, and Mr. Wicksteed's arguments are so founded on practical experience, we shall give some extracts in our next.

Adcock's Engineer's Pocket-Book for 1846. London: Simpkin and Marshall; J. Weale, Holborn.

This highly-useful companion for the engineer, architect, and every man of scientific pursuits, is before us, and not only fully bears out the character of its contents, and fertility of a reference, some new matter is added, which, from the introduction of various new systems of propulsion on railways, will be found interesting. In addition to a well arranged almanac and diary, there are calculations relative to all the mechanical powers—the powers, proportions, strength, and capabilities, of steam-engines, wind-mills, water-mills, and other powerful engines in hydraulics and pneumatics—foreign weights and measures, mensuration of surfaces and solids—heat and artificial light—strength and weight of metals, woods, stone and other materials—artificers' work, as bricklayers, masons, carpenters, digging, paper hanging, tiling, plastering, paving, slating, well sinking, &c. To the whole of these subjects—the remarks appended to which are from the first authorities—are subjoined elaborate tables of dynamical calculations for reference; while, in addition to what has appeared in former Numbers, is added descriptions of various screw propellers—the several atmospheric railways, with the Report of the Committee of the House of Commons thereon—Pilbrow's plan, Hallette's, rope traction—Prosser's guide wheels—the gauge—and various other subjects connected with the scientific world, which will, doubtless, secure it a place at the table of every engineer and railway board-room. It is of a convenient size for the pocket.

Immediately, in 1 vol., 8vo., with maps, plates, and woodcuts,

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SIMMS ON THE PRINCIPLES AND PRACTICE OF LEVELLING, Third Edition, with his work on SETTING OUT THE WIDTHS OF GROUND REQUIRED FOR RAILWAYS OR CANALS, together with Mr. LAW'S EXAMPLES OF THE SEVERAL MODES OF SETTING OUT RAILWAY CURVES. The whole forming a comprehensively useful volume, in 8vo., with Seven Plates and several Woodcuts—price 7s. 6d.
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ANALYSIS OF THE EVIDENCE IN FAVOUR OF THE CONSTANT SUPPLY SYSTEM,
Given before the "Health of Towns Commissioners," with REMARKS thereon.
By THOMAS WICKSTEED, Esq., C.E. 41
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RAILWAY REFORM.
In a few days will be published, price One Shilling, 42
RAILWAY REFORM, AND THE RIGHTS OF SHAREHOLDERS AND THE PUBLIC IN THE RAILWAY HIGHWAYS OF THE UNITED KINGDOM. By J. TROUP, Esq.
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COSHEEN COPPER MINE, county of Cork, Ireland.
The BUSINESS of the ABOVE MINES is now CONDUCTED at No. 4, KING-STREET, CHEAPSIDE, where specimens may be seen, and all particulars obtained.
Dated March 21, 1846. JAMES CROFTS, Secretary.

MINING PROPERTY.—CAPITALISTS who are disposed to INVEST in CORNISH and FOREIGN MINES, will find the present opportunity very favourable for so doing. From large sums having been lately diverted from such investments for railway speculations, standard mines are now selling at prices that will pay the purchaser 20 per cent. per annum for his outlay. There are also other mines that are on the eve of paying dividends, which can be recommended with confidence.
Applications to be made to Mr. JAMES HERRON, mining agent, No. 3, Adam's-court, Broad-street, London. 44

MINING OFFICES, REMOVED FROM 16, CORNHILL, to 1, THREE KING COURT, LOMBARD-STREET.—Mr. R. TREDINNICK (of Cornwall), having established PRACTICAL AGENTS and CORRESPONDENTS in every MINING DISTRICT, whereby he obtains early and accurate information respecting MINES, proffers his services to capitalists and adventurers in the PURCHASE and DISPOSAL of SHARES. 45

COPPER ORES

Sampled March 25, and Sold at Swansea, April 15, 1846.

Mines.	Tons.	Prod.	Stand.	Price.	Mines.	Tons.	Prod.	Stand.	Price.
Cobre	105	13⅜	86½	£9 6 6	Cuba	69	12½	85½	£8 2 0
ditto	102	13⅜	87	9 8 0	Copiapo	95	25½	83½	19 1 6
ditto	100	13⅜	85½	9 4 0	ditto	91	25½	83	18 18 0
ditto	22	18½	83½	13 0 6	ditto	90	25½	83	18 18 0
ditto	95	13½	85	9 11 0	Knockmahon	124	10⅜	94½	7 16 6
ditto	91	13½	84½	9 9 0	ditto	34	14	89½	10 5 0
ditto	76	13½	84½	9 10 0	Pennsylvania	80	17½	84½	12 8 0
Cuba	100	12½	87	8 10 6	ditto	75	7½	96	4 19 0
ditto	95	12½	86½	8 7 6	Chili	76	32½	77½	23 0 0
ditto	90	12½	85½	8 4 0	ditto	75	32½	79½	23 12 6
ditto	77	12½	87½	8 6 6	Cuba	40	10½	81	13 12 6

TOTAL PRODUCE.

Cobre	591	£5683	2	6	Pennsylvania	155	£1363	5	0
Cuba	431	3586	1	0	Chili	151	3519	17	6
Copiapo	276	5233	0	6	Cuba	40	345	0	0
Knockmahon	158	1310	16	0					

Total tons, 1802.—Total amount, £21,199 2s. 6d.

COMPANIES BY WHOM THE ORES WERE PURCHASED.

	Tons.	Amount
English Copper Company	181	£3420 18 6
Freeman and Co.	179	1629 8 0
Sims, Willyams, Nevill, Druce, and Co.	295½	4355 12 6
Vivian and Sons	565½	5983 12 6
Williams, Foster, and Co.	581	5809 11 0
Totals	tons 1802	£21,199 2 6

Copper ores for sale April 29.—Knockmahon 114, ditto 110, ditto 97, ditto 95, ditto 68, ditto 63, ditto 30, ditto 16.—Cobre 100, ditto 98, ditto 96, ditto 89, ditto 81, ditto 80.—Berehaven 94.—Llandidno 86.—Copiapo 84.—Holden's Slag 27, ditto 11.—Hafodyllan 21, ditto 6, ditto 4.—Sicillan 7.—Molland 3.—Total, 1480 tons.

COPPER ORES.

NO SALE on Thursday last, April 16.

Copper ores for sale on Thursday next, at Andrew's Hotel, Redruth.—Mines and Parcels.—Devon Great Consolidated Wheal Maria 1430—West Caradon 536—Tresavean 460—Fowey Consols 330—Mark Valley 206—West Wh. Jewel 204—Trethellan 123—Holmbush 115—Bedford United Mines 100—Wh. Gorland 29—West Trethellan 23.—Total, 3556.

Copper ores for sale on Thursday week, at Andrew's Hotel, Redruth.—Mines and Parcels.—United Mines 1497—South Caradon 470—Treleigh Consols 190—Creeg Braws 136—Par Consols 131—Wh. Sisters 89—Penstruthal 36—N. Downs 16—Pembroke 1.—2566.

QUARTERLY SALE OF COPPER ORES IN CORNWALL.—To March 31.

Copper ores, 39,335 (21 cwts).—Fine copper, 2980 tons 19 cwts.—Amount of money, 207,697*l.* 10s. 0d.—Average standard, 106*l.*—Average produce, 7½ and 1-16th.—Average price per ton, 5*l.* 5s. 6d.

WORK PERFORMED BY CORNISH ENGINES.

The number of pumping-engines reported for the month of March is 32—the quantity of coals consumed being 3198 tons, lifting, in the aggregate, 31,000,000 tons of water 10 fathoms high—the average duty of the whole is, therefore, 54,000,000 lbs. lifted 1 foot high by the consumption of a bushel of coal.

THAMES TUNNEL COMPANY.

The number of passengers who passed through the Tunnel in the week ending April 11, was 22,315; amount of money, £92 19s. 7d.

NOTICES TO CORRESPONDENTS.

"W. R."—A call of 3*l.* per share has just been made in the Durham County Coal Company. We are not aware what progress they are making, but we should very readily devote space for occasional reports, if they were furnished us by the directors.—"W. R." should see to it at the next meeting.

"A Miner" (Illogan).—Mr. W. Brunton's improved apparatus for dressing ores has already been described in our Journal. We should, however, be glad to afford space for any communication on the subject.

Willmer and Smith's European Times.—We are glad to find this publication has all the appearance of being as successful as it is useful; it is a well-arranged and comprehensive commercial newspaper, prepared and published expressly, on the 4th and 19th of each month, for transmission to the United States, Canada, the British Colonies, South America, &c.—and, we understand, enjoys an extensive and respectable circulation.

THE MINING JOURNAL
And Atmospheric Railway Gazette.

LONDON, APRIL 18, 1846.

Within the past few days, a circular has been transmitted by the purser of Wheal Penrose—a mine worked on the cost-book system in Cornwall—to the several adventurers; and as it appears to us there is something novel in the nature of the application, and as it may be said to apply to mining under the cost-book system, and as affording a contrast to the course adopted by the London companies, some few observations may not only be considered as pertinent, but of some degree of importance, when we find that the cost-book system proves itself not to be perfect, or that those who profess to act upon it reflect so much discredit on the system. It is hardly necessary for us to tell our readers—we, of course, refer to those embarked in mines in Cornwall—that the cost-book system, or, rather, as we understand it to be, is simply this:—The names of the adventurers are entered into the cost-book, the simple rules, or regulations, are therein set forth, and meetings of each alternate month—we speak of the ordinary custom—take place; the accounts are submitted, approved, and a division is made, as to the cost on the share, in case of a deficit, or a division in the shape of profits, after allowing a certain balance to be retained in the hands of the purser. It was but some two or three weeks since that we felt called upon to make some observations on the course adopted in the management of the Trewavas Mine; and we have no hesitation in again expressing the opinion we then advanced, and at this moment entertain, as relates to the conduct of the committee, reflecting, as it does, the greatest discredit on them—more especially, that the sooner the out-adventurers in mines in the county of Cornwall direct their attention to the mode observed, as regards the mines in which they may be interested, carried on under the cost-book system the better. We have ever been advocates for the usage of the course adopted in Cornwall, believing that the principle which had heretofore influenced them was perfect in one sense—while honesty and straightforwardness in presenting the accounts, were the principal points to be referred to in advocacy of the system.

We find, however, that we have mistaken the application of the system, which, in itself, we are ready to uphold. Our opinion as to the scrip system is, we believe, well known—we detest it. To the registration under the Act, we are decidedly opposed; and, indeed, we may say, on good authority, that there is no disposition on the part of Government to place mines under the registration system—while, as regards the cost-book system, which we have ever advocated, we regret, that we should feel called upon to say that, if such cases as those brought before us, infamous as they are, should be repeated, it will be our object to abolish the system, so far as lies in our power, and not further allow the innocent out-adventurers to be mulcted from the confidence reposed. Let us now take the case before us, and noticed in another column—that of the Wheal Penrose. Here we find that the Rev. Canon Rogers, kindly, and, we presume, without any private interest or pecuniary advantage, actually paid the value of the machinery and materials in Wheal Penrose, on the mine being taken up by the present body of adventurers. This, however, appears to have been kept quiet, or, at least, certain, if not all the adventurers were innocent that any such claim existed. The shares were sold readily, without regard to any supposed debt, for such is not according to the cost-book system, if it be regularly observed; and now it is, that the unfortunate holders find only they have purchased shares with a charge upon them, of which they were ignorant, but which it was certainly their duty to inquire into. The reverend *Canon* has expressed, through his solicitors, his determination of firing a *gun* at the adventurers, and, no doubt, the clerical and legal powers will have their effect on the laity; but we hope this single instance will, in itself, be sufficient to put adventurers on their guard, and not believe that, because they are dealing with men moving in a respectable sphere, they are to expect either honour or honesty being observed. These are hard words; but with a recollection of Trewavas, and, if we mistake not, Mr. Plomer was also purser there, we feel called upon to speak thus boldly. A meeting will be held within a few days, and we await the results; while we shall feel it a duty imposed on us, to examine the several points, and to lay before our readers the impression conveyed after a fair consideration of the subject.

A question of considerable importance to the mining districts of Nova Scotia has arisen out of a Chancery suit, between the executors of the late Duke of York, and the General Mining Association of London. It appears that a committee had been appointed by the House of Assembly to consider a petition presented by the inhabitants of Newport, Rawdon, and Douglas, in the county of Hants, Halifax, Nova Scotia, and who have made their report on the subject. They have come to the conclusion, that the late arrangement made with the association on the 28th of July last, was a surrender of the interests of the Crown and the province, not warranted by the circumstances of the case—that the suit in question did not affect the honor, or create any obligations on the part, of the Crown; and they cannot, therefore, concur in the expediency or justice of the late arrangements, allowing them to raise 26,000, instead of 20,000 Newcastle chaldrons of coal per annum, without an increase of the former rent of 3000*l.* a year, which they consider a diminution to the revenue of 600*l.* per annum. They express their opinion, that the association since 1828 have held the mines on highly beneficial terms, at less than their actual value—inasmuch as, previous to that period, they were offered 7000*l.* a year for the mines at Sidney, and which is even a smaller sum than they could now obtain, if put unfettered into the market. They consider it the duty of the representatives of the province, to appeal to a proper tribunal, to test the legality of the grant made by Geo. IV. to the Duke of York of the entire mineral wealth of the province belonging to the Crown, irrespective of the rights of the people,—and creating for 60 years a close monopoly of all mineral property, with the exception of the coal beds at Pictou and Sidney; and they deem it their duty to recommend to the House to raise the question before the Privy Council, and thus place these resources in the hands of the Crown, that their development may be hastened by private enterprise.

It appears that 20 of the 60 years have expired, and that yet no effort has been made to work a single bed of coal, or other mineral—that the very nature of the title of the General Mining Association will impede, rather than facilitate, any profitable operations; and that every year, with the diminution of their term, their hopes of profit, and consequent motives for exertion, will be lessened; they are, therefore, of opinion, that should it be found that the grant does not confer a legal title, through being improvidently made, the House will serve the interests of the Crown and the people, by re-

lieving her MAJESTY from claims which create such loss and embarrassment. Notwithstanding this opinion, they would not disturb the association in their possession of the coal fields now working at Picton and Sidney; but confirm their claims by every pledge, which the honour of the Crown or the law requires; but recommend that no further lease be granted, until the question is finally settled. The report concludes with some observations to a Civil List Bill now passing the House, not immediately relevant to the question.

We must confess, we are not sufficiently informed on the claims of the parties to offer a decided opinion; but would just remark, as we have often done on previous occasions, that mining being of such an uncertain nature, the greater liberality in the demands, by way of rents and dues, tends to the advantage of both parties; and that any attempt to raise these to an undue extent only leads to the depreciation of property, a loss instead of a gain to the proprietor, and too often the irretrievable breaking up of a mining adventure; and these observations apply with greater force to such a district as Nova Scotia, containing undeveloped mineral wealth, and, consequently, requiring every encouragement for the opening and working of her mines and collieries.

In last week's Journal we gave a somewhat lengthy account of the extensive development of the mineral riches of South Australia, which is being confirmed by each fresh arrival. The mines in every locality are far exceeding the most sanguine expectations, and it is, indeed, difficult to speak prospectively of the benefits likely to result from the opening of these mines; we would, however, just throw out a caution against cherishing undue expectations—knowing, as we do, the uncertainty of mining, and the explorations at present made being but surface examination, and those of no great extent, may not hold out in depth. Enough, however, is known to warrant a judicious application of capital to active research; and it appears that such capital is not wanting, even among the colonists themselves; and the northern and southern divisions of the Burra Creek survey, already holds out promises of most remunerative return. In the latter alone, it is stated by a competent authority, that all the first favourable impressions are likely to be realised, and already estimates the amount surveyed at 50,000*l*. The productive operations instituted by the northern proprietary upon their moiety of the 20,000 acres have already so far removed from their investment everything of an unpromising character, that scrip is changing hands at 50 per cent. premium. Nor are all the energies of the colonists likely to be expended in this district—as a requisition has been lodged with the proper authorities for the survey of several square miles of mineral land, abounding with copper, in the district of Mount Barker; and such is the general impression as to the difficulty of obtaining sufficient transport for the superabundant metalliferous wealth in its unrefined state, that the proposed erection of smelting furnaces will be carried out at no distant day, under circumstances which offer increased encouragement the more they are subjected to inquiry and examination.

When it was asserted of the colony, some years ago, and before its capabilities were apparent to everybody's comprehension, that it abounded "with all the elements of wealth and prosperity," it was asked, alternately, by the desponding and the credulous, "Where are the pretended elements?" If it were possible that such a question could be propounded now-a-days, the attached colonist might point to some of the countless flocks and herds which bedeck the verdant and nutritive pasturages: to the "smiling" corn-fields, which have removed all lack of bread, and rendered the garners insufficient—to the fruitful vineyards, orchards, and gardens—to the tens of thousands of unencumbered acres which invite the labours of the husbandmen—and, lastly, to the subsoil riches, which seem to promise the Government a full treasury, and the governed a general exemption from penury, and exultingly ask, "What elements of wealth and prosperity do you find wanting?" Whichever way we look, the reports give a peculiar interest to those branches of commerce attached to mineral produce, and opens up a new view of the future destiny of the colonies in question; and all the information yet obtained, as to the resources of Australia, points to the greatest probability, that the mountainous districts as yet unexplored, particularly the Blue and Darling ranges, will be found rich in copper and lead. Iron also forces itself upon the attention almost everywhere; and is known to be accompanied with large fields of coal, at a moderate depth, favourably placed for working, and generally of a good quality. These latter, however, it may be said, are treasures rather for future generations than the present; reserved for those who shall hereafter bring to bear upon them powers of production and consumption not yet to be spared from the business of the old world. Copper ore may be more easily turned to present account. If rich, and easily accessible, it may be raised for export with great advantage, even now; and, if smelted in that part of the world, would find a large market already open, and capable of almost indefinite extension.

Yet there is no doubt that, to carry out these mining speculations to any extent, much capital must be supplied from this country; the pecuniary resources of Australia are at present not more than enough to sustain other legitimate branches of employment, and, although capitalists there may invest a few thousands in raising and shipping surface ore, it must be some years before she will be enabled to bear the designation of an extensive mining colony, notwithstanding her evidently promising indications—and from which the Government should render service by immediately promoting, in every feasible manner, the acquirement and diffusion of sound information, as to the real nature and extent of the mines, so as to furnish means of estimating, with some approach to accuracy, the amount of capital and labour which may be safely and profitably invested in them; and thus, should the present appearances prove well-founded, would tend to induce much capital to flow into the colony for mining speculation, notwithstanding the distance.

As the immense extent of the copper trade may be considered of the utmost importance from the large capital embarked therein, any large increase of produce likely to effect it, must be of the greatest interest; and the following statistics of the imports and exports give, at one view, the extent of this branch of commerce:—The quantity of copper obtained from the ore annually raised from our own mines exceeds, according to the best estimates, 300,000 cwts.; and may be valued at 1,500,000*l*. sterling. We also smelt a large proportion of the ore raised in other parts of the world. We now import annually for smelting an average quantity of upwards of 1,100,000 cwts. of foreign ore, which, on an average, may yield about one-fifth of metal, or about 200,000 cwts. of copper. The largest foreign markets for British copper are the East Indies and China, France and the United States; but by far the largest demand is for the East Indies. The following statement will afford a tolerably correct idea, both of the chief sources of the copper ore we import, and of the locality of our principal customers for the metal; and may serve to illustrate, in some degree, the probable effect of the opening of a new and extensive source of supply in Australia:—

IMPORTS OF COPPER ORE.

	1843.	1844.	1845.
Total imports ..... cwts.	1,014,414	1,168,115	1,133,240
From Cuba	633,663	695,292	—
" Chili	396,589	391,323	—
" Columbia	24,018	20,563	—

EXPORTS OF BRITISH COPPER.

	1842.	1843.	1844.
Total exports ..... cwts.	194,061	350,301	376,654
To the East Indies and China	99,990	124,859	140,338
" United States	16,378	23,464	42,790
" France	21,292	97,234	163,006

A small supply which we have been accustomed to receive from the British West Indies, has fallen off in quantity of late years. We received from the Australian colonies in 1843, 848 cwts., and in 1844, 2681 cwts. It may be observed, that there is a differential duty here in favour of the ore imported from British possessions, which could not fail to encourage the importation of a rich ore from Australia, as long, at least, as the produce of Cuba came into our market; our import duty on foreign ore ranging from 63s. to 126s. per ton, according to the estimated proportion of metal—and that on colonial being uniform at 21s. per ton for all qualities.

We cannot do better than call the attention of our readers, and (if possible) of the public, for a moment, to the monstrous misposition of the railway deposits. It is known nearly to all the world, that the enormous sum of about 15,000,000*l*. sterling has been impounded for nearly three months, and may continue so for three months more, as the Government is in no humour to quicken its railway legislation, any more than other vital public measures, presently depending before Parliament. Meanwhile, the wheels of commerce, like those of PHAROAH's chariots, roll heavily, nay, are almost taken off, and a sea of unsatisfied responsibilities is rushing in upon us, against which the public could have built up on either hand an impassive wall, with the funds which the inattention or the obstinacy of Government has operated upon as a sequestration. They know, as well as any set of men living, that money at rest has no fecundating property. It is motion and motion only that gives it fertility. It is like the harvest of the husbandman, that will not bless him with its increase, unless he first scatter the seed. Their chapter on the wealth of nations, they have in this instance been reading, like a lesson in Hebrew, backwards. It may be safely affirmed, that the public never contemplated the permanent imprisonment of its 15 millions of hard cash; and as confidently may it be declared, that the Government is highly culpable in not having encouraged its liberation, providing and taking the necessary securities. The trading vigour, the commercial enterprise, of the nation, have sunk into partial collapse, by the withdrawal of that which was their animating principle, by their filling up the fountain of their energies. The patient is daily increasing in functional disorganisation, by the suspension of the ordinary tonics: he has been bled freely, and has not received the requisite food to replenish the arterial vessels withal: his entire treatment, in fact, has been rather empirical than professional,—and this, too, in spite of, and against, a better knowledge of the true origin and symptoms of the case. We do not say this, that we may create a resting-place for a charge against Ministers; but solely because the manufacturing and trading interests of the kingdom are suffering from Ministerial supineness. The health and prosperity of the flock is imperiled by the leaden slumber of the shepherds. The paralysing effect of the Ministerial policy on the money part of the railway question, is too notorious to be seriously disputed. The shawl, the muslin, the broadcloth districts, are getting the motions clogged for capital: they cry out for the descent of that lubricating dew, that will ease the attrition of their machinery. The Government specific for all this is one of the most feeble of palliatives—it is purposed to allow companies, which have not been successful in their application to Parliament, to accomplish their own dissolution; but how many will choose to do so?

It may be presumed, that the greater number of schemes will pass the entire ordeal of the committees; that another large number which have not now succeeded, in consequence of slight and technical noncompliance with the Standing Orders, will, as a matter of justice to the district and parties interested, hold over till the session of 1847—so that the Railway Relief Bill can at best but operate upon a small minority of the pending schemes, and release but a small per centage of the impounded money; for that reason, granting the purposed expedient should succeed up to the highest point of its competency, yet the narrow limits assigned it, the close tether which it must not o'erleap, will make its success as to some of the parts, its failure as to the whole. It is a little and a languid measure, devised to meet a great and a pressing necessity. We fear there is too much of the session gone, to enable even a government of angels adequately to redeem the time. But advantages might arise from the immediate introduction and maturity of a short bill, for the liberation of the deposits in such a way that the general amount may be brought into the market, and so invested as to distribute itself to those interests which need its animating influence upon those departments of trade and commerce, whose prostrate energies would be so invigorated by the descent of the golden shower. A measure having this property, and qualified to administer this benefit to the trading circles of the kingdom, it is the just, reasonable, and immediate duty of Government to consummate.

The continual ill-feeling which exists in the greater portion of the mining districts in France, be it iron, coal, or other mineral, in consequence of the monopolising spirit that appears now to prevail among the influential holders of mines and monied men, called forth a proposition of M. FRANCOIS DELESSERT, relative to the legislation of mines. On Friday, the 10th inst., the consideration of this proposal came before the *bureaux* of the Chamber of Deputies, in Paris, who approved of the general principle of the bill or proposition, but a few observations were presented, on the effects that it might produce in the country. Several members considered that the Penal Code relative to coalitions, and the law of 1810, were sufficient to furnish Government with the means of maintaining the rights of all. A great number of the members warmly recommended to the committee appointed to apply themselves in seriously weighing the question, and to see if there was not a possibility to introduce some alterations in the law of 1810, promulgated at the period when mining industry and the working of coal mines had scarcely dawned. The commission is composed of members, several of whom have already expressed their opinions on this important subject in the Chamber, —among them may be named MM. LANREUS, MICHEL CHEVALIER, BINEAU, CHAIX-D'EST-ANGE, PELTEREAU-VILLENEUVE, LAMARTINE, DESSAURET, LEPELETIER-D'AULNAY, LANYER, &c. It will, however, be better understood by our readers, if we give the articles, proposed by M. DELESSERT, for putting down the monopoly of the coal mines of the Loire, St. Etienne, Rive de Giers, and Burgundy: —"Article 1st. That no mine at present conceded, or that may at any future period be conceded, to be worked, shall be amalgamated into the hands of another party, who may have received the concession of another mine, either as private individual, or representative of a company, without the previous authorisation of Government.—Art. 2. That this authorisation shall be given conformably to the forms prescribed in the granting of mines, and be inserted in the *Bulletin des Lois* (Acts of Parliament)." The *Moniteur Industriel* very justly remarks—"That this proposition is truly praiseworthy, but it does not go far enough; for, if Government is allowed to have the power in its hands to grant the authorisation of *fusions*, or amalgamations, does it not still allow the same abuse to exist? The Minister of Public Works ought not to have the power of doing evil, and perhaps ruining the enterprise of mining industry, in his hands, which no one can doubt from what has recently occurred at the collieries of St. Etienne. We are aware that this monopolising system is supported by numerous powerful and skilful interested members of the Chamber of Deputies: however, they could not oppose the reading of the proposition or bill, which was received, and that by a large majority of the house. This important question will, there is very little doubt, be taken up in a serious point of view." The *Censeur de Lyons* makes some very stringent remarks on the subject, and considers this odious monopoly of avaricious or money-making capitalists, who are trying to get the whole of the coal mines of the Loire, and the principal means of conveyance, into their own hands, are not yet sure of their triumph. They will not only have to combat against the General and Municipal Councils, but the whole of the Chambers of Commerce, and the manufacturing interests that they now threaten in the south, but the public opinion, to which it is revolting, and in the body of which it will find adversaries, who will cause them to appear before the law and their country. Although we do not entirely enter into the warm expressions of our mercurial gallic contemporaries, we have invariably been against monopoly in every country, whether it be in mining operations, commercial, manufacturing, or agricultural,—and we are glad to find that the colliers of the coal mines of St. Etienne, since the late melancholy affair with the troops, are becoming more pacified, and some of them have returned to work at the mines of Cote, Thiollier, and Firming. Precautions have, however, been taken by the police authorities, and a military force, that those who return to their labour shall be protected from being molested by those who have abandoned the pits. This affair is a very lamentable one, and is now undergoing the most serious investigation of Government, as there is little doubt that the men had been led to believe that their wages were to be reduced, in consequence of the monopoly now existing, and the ill-feeling that prevails throughout the department of the Loire among all classes, at their working for this combination of monied coal-mine speculators, like those of railways, to get the whole into their own hands, to the detriment of the general industry and progress of this country.

A meeting of the Tincroft adventurers took place on the 14th inst., and it was, we must say, pleasing to find that the proceedings were readily accorded to on the part of the shareholders and directors, who appeared to have but one object in view—that of facilitating the advantages attendant on the workings of the company by co-operation, and thus rendering a practical demonstration, that, so far as the management or prospects are concerned, it could be in no way affected by rumours or reports as to others. The report of the meeting, with that submitted by the directors, and the accounts, with the report of Capt. PAULL, and that of the mining agent, gave evident satisfaction; and while we are ready to assist others in exposing abuses, where they are proved to exist, we must disclaim all intention—as may, indeed, be well imagined by those who are in the habit of perusing our columns—of in any way prejudging any concern, or having the slightest object of attacking individuals. We are anxious at all times to expose abuses, and to maintain our position when once aroused. We have given, we think, pretty conclusive evidence on this point, and in thus adverting to the proceedings of the Tincroft Mining Company; while we do not admire the advantage of the scrip system adopted, we cannot but unhesitatingly state, that everything appears to us fair and open—the directors are, we believe, above suspicion; and it must at all times be remembered, that one solitary instance, even if proved to be carried out under false principles, or in other ways calculated to be injurious, must not be admitted to apply generally, or to affect other undertakings of similiar nature.

WHEAL PENROSE.—An extraordinary circular has been addressed to the adventurers within the past few days, by the purser of the mine (Mr. Plomer of Helston), to the effect, that the Rev. Canon Rogers had, through his solicitors, claimed the immediate repayment of the amount advanced by him for the purchase of the machinery and materials on the mine at the time of the commencement of operations, by the present body of adventurers. There is something novel—and, we may add, inexplicable—in this application; as we have yet to learn that it is the ordinary course, or even honest, to allow any individual to advance money for a purchase, of which the adventurers are kept in the *dark*. We doubt not, however, the meeting next week will throw some *light* on the subject, to which we have briefly adverted in another column.

INTRODUCTION OF THE SMELTING TRADE INTO NEW SOUTH WALES.—The better to encourage the commencement of smelting operations in the colony, the Legislative Council have passed the Metallic Ores Bill. In moving the second reading the Colonial Secretary said, that there was a great quantity of ore in bond that had been sent to the colony from South Australia and New Zealand, for the purpose of being smelted. Under the existing customs these ores were liable to a duty of 10 per cent., and this bill was to exempt all metallic ores imported or entered inwards from the bonded warehouses from duty for a period of two years. Great preparations were making at Newcastle, in New South Wales, for carrying out the smelting trade, and the port possesses every requisite for carrying on the business to great advantage. Every effort was being made to induce the South Australians to send the ores from the newly discovered mines there, before they established smelting depots in their own district.

THE IRON TRADE IN FRANCE.—By the latest return from St. Dizier, the price of beaten or wrought iron (half rock), made by coal, the 2000 lbs., delivered at St. Dizier, 15*l*. 4s. 2d.; white cast metal, 7*l*. 8s. 4d.; English cast metal, at the warehouses of Messrs. Lacombe brothers, and M. Varnier Martin, brokers, at St. Dizier, 11*l*. On the whole there is nothing new to mention, with respect to the iron trade, since our last. Very few contracts are entered into, and the ironmasters generally in France, particularly those who have a stock on hand, would submit to a slight reduction, so as to make large bargains. There appears a general reluctance on the part of railway contractors, to make any time deliveries,—as they find it as advantageous to import their iron from this country and Belgium, according to the fluctuations of the markets, instead of entering into any specific contract at the present time.

STEEL MANUFACTORY IN THE DEPARTMENT OF THE CORREZE.—The extensive steel factory of Uzerche, established by M. Barbazan, forge-master, and member of the General Council, was publicly opened by the prefet of the Correze, in presence of all the leading men of the canton, with music and appropriate flags, emblematical of mining industry, attended by a numerous concourse of persons interested in the prosperity of the iron and steel trade. This is looked upon as a national progress, not only for the district, but the country at large; and the highest praise is given to M. Barbazan for his enterprise, which, if carried out to its fullest development, will equal the steel produced and imported from Germany and Sweden, at a large expense. The manufacture of steel in France has been making a very great progress within the last two or three years, as the great iron factors have induced some very experienced workmen from this country, Belgium, Germany, and Sweden, at high wages, to enter into their establishments and communicate this important branch of industry.

LIABILITY OF ALLOTTEES—WOOLMER *v.* TOBY.—All doubts are now removed as to the *bonâ fide* nature of the action, recently brought by the committee of management of the Direct Exeter, Plymouth, and Devonport Railway, against an allottee of shares in that undertaking, for the purpose of recovering the amount of deposits, which, according to the terms of his application for the allotment of shares, he had undertaken to pay—Mr. Serj. Kinglake having yesterday, after ably arguing his case, obtained a rule for a new trial, from Lord Denman, in the Court of Queen's Bench —all the judges concurring in the propriety of the decision.

LIABILITIES OF PROVISIONAL COMMITTEEMEN—GARBETT *v.* ADAMS.—This was a case in which Mr. Serjeant Adams and two other gentlemen were sued as members of the Shropshire Mineral Railway, and at the last Gloucester Assizes a verdict was returned for the defendants on three counts of the declaration, and for plaintiff on the others.—Mr. Serjeant Talfourd now moved for a rule to show cause, why the verdicts should not be entered for the plaintiff on the other three counts—the question being, whether plaintiff being solicitor, and employed as broker to the company, to dispose of the shares, was bound to deliver a signed bill, according to the statute, before proceeding to action for the fees to which he claimed to be entitled?—Rule granted.

AMERICAN COAL TRADE.—The following is an account of the imports of coal into Boston, from the year 1841 to 1845 inclusive.—

Years.	English.	Pictou.	Anthracite.
1841	*Tons* 14,943	37,536	107,095
1842	12,390	29,874	86,582
1843	6,862	25,330	111,655
1844	9,097	28,417	134,120
1845	13,193	42,035	165,429

Comparing the two last years, it appears that the English coals have increased about 67 per cent.: Pictou and Sidney, 65 ditto; anthracite, 23½ ditto.

THE MINES AND MINERAL WEALTH OF SCOTLAND.

BY JAMES NICOL, ESQ.

Lead ore is found in many other parts of this chain of hills, principally in the vicinity of the igneous felspar-porphyry veins. At Minnigaff, in Galloway, a vien was discovered in 1763, when forming a road. Its produce varied from 30 to 400 tons of ore annually; but it is now abandoned. In the parish of Kells, in a line towards the lead hills, other veins have been observed, whence some persons have been inclined to conjecture a connection of all these veins with each other. A mine, promising to become of more importance, has lately been discovered in making a farm road near, Carsphairn, in Galloway. The vein of pure ore was in some places two and a half feet thick, and nests of it weighing about 1 cwt. occur. Its present produce is not known to us. Other veins have been discovered in this vicinity, at Afton, near New Cumnock, and also in other parts of Ayrshire and Galloway. In the eastern part of the southern mountain group, lead ore has been found near Langholm, in some parts of Roxburghshire. and at Grieston, in Peeblesshire. In none of these places, however, has it been so abundant as to encourage the establishment of mines.

The principle lead mines in the central district of Scotland have been already noticed, as producing either silver or copper, and none of them seem now in operation. Besides these, it has been observed in many other places, as in the Lomond Hills, and in Kemback parish in Fife; but as the amount does not appear sufficient to justify mining, and its occurrence is not otherwise interesting, we need not notice these further. Among the metamorphic rocks in the north of Scotland, veins of lead ore frequently occur. On the main land mines have been several times opened at Tyndrum, in Breadalbane, but as often abandoned for want of success. The vein has been traced for several miles in length, and when recently examined was found to contain also ores of cobalt and silver in considerable quantity, which had been formerly neglected from ignorance of their value. Several other veins with ores of lead, copper, iron, arsenic, and other metals also, appeared in a recent survey of this Highland district, and it seems not improbable that some of them may be wrought with a profit. At Strontian, in Sunart, and at Lurg, in a neighbouring glen, lead mines also containing copper ores have been in operation for a considerable number of years; and, when most successful, the former are reported to have yielded about 4000*l.* worth of lead annually. In other parts of Argyll and in Inverness-shires, lead ore has been discovered, as near the head of Lochfine in Lochgoil parish, where it was remarkable for the great amount of silver it contained. Lead ore likewise occurs near Ballater in Aberdeenshire, A lead vein in limestone, at Stotfield, Morayshire, was wrought nearly a century ago, but was found unproductive. It has also been discovered in the Duke of Richmond's property in Strathdon, Banffshire: in several places in Caithness, but presenting no points of particular interest.

In the Western Isles lead mines have been long open in the island of Islay, where their occurrence is noticed by Buchanan, the historian. They appear never to have been of great importance, and we believe are now neglected. Lead mines have also been attempted in Coll and Lismore, but with no greater success. In Hoy, Stormness, and Stronsy, in the Orkneys, lead ore has also been found, but not in such abundance as to be wrought with profit. In concluding this notice of lead mines in Scotland, it will be seen that most of them have proved failures. This will appear less wonderful, when it is considered that they have in almost every case been begun and carried on by persons wholly ignorant both of the theory and practice of mining. In many respects this is much to be regretted, as the same expenditure of money and labour properly directed, might have led to very opposite results, and produced discoveries contributing greatly to the advancement both of private and public wealth. The failure of these attempts, and the useless waste of money which many of them exhibit, show in a highly forcible manner the national importance of well-educated mining engineers. In France, Prussia, and Saxony, countries far inferior to Britian in mineral wealth, this fact has been long recognised, and institutions for this purpose supported by the Government. With so many indications of lead ore in almost every part of Scotland, it can hardly be doubted that many valuable mines remain to be discovered, and that this branch of national industry might be very greatly extended.

STEAM NAVIGATION, ITS POWER AND IMPORTANCE.

BY J. MACGREGOR, ESQ.

When we reflect upon the wonderfully increased intercourse between the United Kingdom and the United States—and when we estimate the comparatively speaking limitation of the distance by calculating the time required now with that occupied formerly, in passing to and fro between both countries—it would be rash and hazardous to give an absolute opinion on the future elements, rapidity and extension of navigable power. It was but late in the world's history, when a Dutch ship performed the voyage, by leaving Rotterdam or Amsterdam in the spring of one year, sailing only during the day, and furling her sails, and laying-to during the night; and on reaching New York, then called New Amsterdam, this ship was discharged, unrigged, and laid up for the winter. On the following spring, this ship was rigged, her condition examined and repaired, then laden with wood, fish, or furs, and then made her homeward voyage during the summer, as slowly as her outward voyage was performed the preceding year.

The voyage was afterwards performed out and home the same year. English ships then made two voyages during the year; and, growing bolder, three voyages, to and from America were made annually by the same ship. Those splendid vessels, the Liverpool and New York line of sailing-packets, were then established, and the intercourse between Europe and, America astonished the world. Steam-ships were now seemingly about supplanting these sailing-ships, at least in the carriage of passengers.

The space between the Old and New World ceases to be calculated by miles and leagues—days and hours measure the distance. Liverpool and Halifax are brought within 10 days, and Liverpool and Boston within 12 days of each other.

Steam-vessels now ply along the coasts of Africa, in the Chinese seas, and along the shores and rivers of New Holland.

The steam-ships now employed between London and Scotland are of enormous power and magnitude. So are those which run between the Mersey and Clyde, and between the two latter rivers and the several ports of Ireland.

The float of the General Steam Navigation Company maintains a constant intercourse with the ports of France, Holland, and Germany, as well as in the coasting trade of the British channel.

The states of continental Europe are also advancing in the acquisition of steam power. France, Austria, and Russia are the foremost in the number of their steam-ships. Austria excels all the states of the continent in merchant steam-ships. France and Russia in steam-ships of war. The Italian states, especially Naples and Tuscany, possess several well-built and well-navigated steam-ships. Prussia and Holland, on the Rhine, contribute greatly to the facility of intercourse. Belgium has made attempts, at great expense, to establish a trans-Atlantic line of steam-packets. The attempt has failed. The Hanse Towns, Denmark, and Sweden, also possess steam-ships, but only on a comparatively small scale. Greece and Turkey are far behind other countries in the possession of steam-vessels. The Greeks, were their country and commerce in a flourishing condition, would, no doubt, manage steam-ships as ably as they certainly have their sailing-vessels. The Turks have been clumsy mariners, and their few steam-vessels are wretchedly managed. Of all Orientalists, the ruler of Egypt has made an extraordinary advance in the acquisition of powerful steam-ships. In 1814, there was but one steam-boat belonging to the British empire. During 30 years the number has increased to about 1000 British steam-boats, which are now navigating all parts of the world.

In 1846, the British Government employs a magnificent fleet of steam-ships, managed by, and belonging to, a private assocation, which sail, semi-monthly for eight, and monthly for four, months in the year, between Liverpool, Halifax, and Boston. From Boston, the great means of intercourse, by steam-boats and railroads, diverges to all parts of North America—extending to the furthermost of the great lakes, and up and down the navigable rivers, flowing from the Rocky Mountains. Iron is made to swim, in the form of a ship (the *Great Britain*) exceeding 3600 tons burden, impelled forward from Liverpool to New York, against the currents, raging storms, and seas of the Atlantic, by an invisible power, moved by the resistless force of fire causing the expansion of water.

Another splendid fleet of steam-ships, belonging also to a private company, are employed by the Government to maintain a monthly intercourse between the United Kingdom, by Southampton, and all the islands of the West Indies and the states of Mexico and South America.

A third and mighty fleet, belonging to a great company, and employed by the Government, sails monthly from Southampton to the European Peninsula. and by way of Gibraltar to Malta and Alexandria, with a branch to the Levant and Constantinople. The same company conveys the Government mails and passengers by three of the most powerful steam-ships in the world, from Suez, down the Red Sea to Ceylon, Madras, and Calcutta; and that company has contracted to extend the established chain between Southampton and India to Singapore and the Chinese empire, by the employment of several powerful steam-ships, nearly all constructed. This steam line between England and China is now complete, by which we have received an English newspaper, printed at Hong Kong only 56 days before our having read it in London.

A British company has for some years established a line of steamers along the southern shores of South America; and the Hudson Bay Company have a steam-ship on the western coast of North America. The East India Company employs one steam-ship in conveying mails between Suez and Bombay; and several steam-vessels are employed in India, and others in the Eastern or Chinese seas, by the British Government, as vessels of war. The following appeared as the programme of the projected line of French steam-ships:—

First great line—From Havre to New York. Four steam-ships are to be placed on this line; the departures are to take place once a fortnight. 15 days are allowed for each passage, and 10 days at New York—in all, 40 days. 20 days are to be allowed to each vessel at Cherbourg, between every voyage, to rest the crew, and repair the vessel and engines.

Three steamers are to be placed on this line; the departures are to take place once a month. Two days are allowed for the passage from Bordeaux to Corunna, and 10 hours' stay there; five days 12 hours for the passage from Corunna to the Azores, and one day's stay there; 12 days 16 hours for the passage from the Azores to Martinique, the steamers to remain 10 days at Martinique—20 days allowed for the return passage from Martinique to Bordeaux—in all 40 days' sailing, and 11 days and a half stoppages. 37 days are allowed between every voyage, at Rochefort or Bordeaux, for repairs and stoppages.

Third great line—From Marseilles to Martinique. There steamers are to be placed on this line; the departures are to take place once a month. From Marseilles to Barcelona, one day four hours' stay; from Barcelona to Cadiz, three days and 24 hours' stay; from Cadiz to Madeira, three days and 24 hours' stay; from Madeira to Martinique, 14 days. The steamer is to remain 10 days at Martinique. 21 days are allowed for the return voyage from Martinique to Marseilles—in all, 40 days' sailing, and 14 and a half days' stoppages. 33 days are to be allowed at Toulon or Marseilles, between every voyage, for repairs and repose.

Fourth great line—From St. Nazaire to Rio Janeiro. Four steamers are to be placed on this line; the departures are to take place once a month. From St. Nazaire to Lisbon, three days and a half, 24 hours' stay; from Lisbon to Goree, eight days.

PRODUCTION OF COAL IN THE DIFFERENT STATES OF EUROPE.

After iron, there is certainly no produce of the mineral kingdom which exercises a greater influence on our commercial relations than coal.

The following is a statistical sketch of the produce of that article in the different countries of Europe.

England possesses the richest veins of coal, both as regards quality and quantity; they form a line from south-west to north-east. In Northumberland and Durham, from the Tweed to the Tees, coal abounds; at Whitehaven, in the hills of Cumberland, in Yorkshire, and in Lancashire. The most abandant mines are in Wales.

The consumption of coal in England and in exportation, is so great, that it has often been asked, if the mines would not be exhausted? but, according to calculations made in proportion to the present consumption, they could not be exhausted under 1500 years—the yearly consumption in Great Britain is 20,000,000 to 21,000,000 of tons.

The exportation increased in the following proportions:—In 1830, 505,421 tons; in 1832, 588,450 tons; in 1834, 621,256 tons; in 1836, 1,101,000 tons; in 1838, 1,413,800 tons; in 1840, 1,621,300 tons; in 1842, 2,120,000 tons; and in 1844, 2,410,000 tons.

The number of miners exceeds 500,000.

English coal is to be had in every part of the civilised world; there are deposits at Rio Janeiro, at Odessa, at Archangel, and at Constantinople.

France does not produce enough coal for her own consumption, and is obliged to import. She possesses 250 mines, of which 182 are worked, and which rendered in 1844, 72,000,000 cwts. of coal to the value of 21,000,000 fr. (840,000*l.*) The produce is increasing, as in 1815 they only rendered 17,000,000 cwts.; 40,000 men are employed in the mines, and traffic belonging to them. In 1842, the importation of coal into France, amounted to 16,718,328 cwts.

France imports her coal from Belgium, England, and the Prussian provinces on the Rhine.

Spain draws but slight profit from her abundant mines; the principal mine is in the Sierra Morena, the produce is not known. They import but little. In some of the principle Spanish ports, there are depots of English coal for the steamers.

In Portugal there are depots at Figuieres, at Coimbra, and near Oporto.

The principal mines of Italy, which produce annually from 140 to 150,000 cwts. are in the Savoy, and near Genoa. The others, scattered over the Peninsula, are of little value, and there are depots of English coal in the principal ports.

Belgium possesses immense mineral riches; in this country production increases. In 1831 the produce amounted to 42,800,000 cwts., and in 1844 it reached 84,232,420. In 1844 the exportation amounted to 1,050,000 tons, a value of about 6,000,000 florins (600,000*l.*)

Holland has no coal mines. There is a single mine in the country of Limberg. They import all their coal from England, Belgium, and the Prussian provinces.

Switzerland, though rich in metals, has very little coal, and imports a quantity from England. The only mine of any value in this country is at Hochefeld; in 1843, it produced 514,969 cwts.

Norway has no coal mines. In Russia the production of coal does not exceed 800,000 punds. It seems that between the Don and the Dnieper, and in Siberia, there are rich coal mines, and the Government are now taking measures to turn them to account.

Denmark has one insignificant mine at Bornholm, and imports nearly all her coal from England.

Austria is rich in coal mines, but the produce is not in proportion with the number of her mines. The annual produce of coal in Austria is at least 12,000,000 cwts.: in 1843 it did not exceed 9,000,000. Of this amount Bohemia produces about one-half; Moravia, 2,000,000; Austria, 1,500,000; Styria, 1,000,000; Carinthia and the districts of Ogragno, a little more than 500,000; Hungary, 600,000; the coast lands (Kusten-land), 60,000; Galicia, 3,000; Lombardy, a very small quantity.

Coal mines exist in nearly every province of the monarchy. In Bohemia there are veins of this mineral along the river Beraun, in the north of the districts of Klattan, Pisen, and Rakovitz, to the neighbourhood of Prague. There are coal mines in the Erzgebirge, in the valleys of the Eger and the Biela, and at the foot of the Riesengeberg, from Schatzlar to Landskron.

The principal mines of Moravia are in the district of Brunr, near Rossitz and Oflovan, and the coal near the mouth of the Oder is of a superior quality. In the Archduchy there are mines near Wiener, Neustadt, Klingenfurt, Gübach, and Gloggnitz; in Styria, near Leoben, and Fohnsdorf; in Carinthia, in the valley of the Lavan, and in the neighbourhood of Prevali; in Dalmatia; in Lombardy, in the districts of Como and Pavia; in Tyrol, near Haring, and in Hungary, in the Carpathian Mountains.

In 1844, Austria exported 773,065 cwts., of which 703,262 cwts. were sent from Bohemia by the Elbe to Saxony, 25,433 cwts. to Turkey, 23,210 cwts. to southern Germany, and 20,542 cwts. to Prussia.

Prussia possesses 540 coal mines, giving employment to 25,000 workmen. The produce in 1844 amounted to 53,000,000 cwts., or a value of 4,500,000 dollars (675,000*l.*). In 1841, Prussia imported 3,864,944 cwts. principally from England. Her exportation was 6,903,473 to Holland, France, and Poland.

In Bavaria, the produce is not what it might be; there are 40 extensive coal mines, princially in her Rhenish provinces, the produce is about 1,200,000 cwts.

In Saxony the mines are worked with zeal, the produce amounts to about 4,000,000 cwts.

There are extensive mines near the forest of Thüringen.

The Grand Duchy of Baden possesses some valuable coal mines.

In the Duchy of Brunswick there is scarcely a mine.

In the kingdom of Hanover there are coal mines which occupy more than 1,000 workmen.

Wurtemberg is poor in this respect. The Grand Duchy of Hesse, the Duchy of Nassau, the Grand Duchies of Mecklembourg and Olembourg do not possess coal mines. In the Electorate of Hesse there are some valuable mines, producing annually about 900,000 cwts.

Generally speaking, the production of coal in Europe is susceptible of being greatly developed, especially in some parts of the Austrian dominions. It is true, that during the last few years, much has been done, but there is still much more to do.

The produce of coal in Europe amounts annually, on a rough calculation, to 120,000,000 fl., or 12,000,000*l.* sterling.

PROGRESS OF FRENCH MINING INDUSTRY.

[FROM OUR PARIS CORRESPONDENT.]

Our mining world continues to be occupied by the great amalgamation of the coal mine companies of the Loire. Certain shareholders in some of the companies swallowed up in the amalgamation, have taken it into their heads to be dissatisfied with it, and even threaten to go to law to put an end to it. But, to use a vulgar phrase, they are quarrelling with their bread and butter; and, if they are so ill-advised as to proceed to legal extremities, they will certainly be defeated,—for there is nothing illegal in the amalgamation, or irregular in the manner in which it has been effected, and, besides, they would have to contend against nine-tenths of their fellow shareholders. In St. Etienne, Lyons, and the neighbourhood, the greatest hostility continues to be manifested to the union of the companies, and the local newspapers are almost exclusively filled with tirades against it. The municipal council of St. Etienne has had some warm debates upon it, and has even gone so far—a daring thing in France—as to denounce the statements made by the Minister of Public Works on the subject, and to nominate a committee, to draw up an exposure of the falsity of those statements. In consequence of these proceedings, it is said that the Government has determined on dissolving the municipality of St. Etienne. But notwithstanding all the opposition it encounters, and the attacks that have been made upon it in the Chamber of Deputies, the great amalgamated company maintains its ground, and has even effected a fusion with another mining company—that of Vercheres—one of the most important of Rive de Gier. It is also said, that negociations are in progress between it and the great Firming Company, which possesses very many mines. The Firming people demand not less that 400,000*l.* for the cession of their privileges. If an union between the two companies be seriously desired, the sooner it takes place the better; for, in the course of a short time, the Chamber of Deputies will, probably, have adopted the propositions of M. Delessert, to the effect, that no fusion between mining companies shall for the future take place, without the express sanction of the Government. A late number of a St. Etienne journal says, that the prefet of the Loire, who had been ordered to Paris by the Minister of Public Works, had returned to Lyons, and it was believed he had been directed to put some grand measure in operation relative to the amalgamated companies,—but what that is, the provincial journalist does not even hint at. Little reliance, however, must be placed in statements of this kind; for, after the speeches of the Minister of Public Works, it is not very likely that the Government intends to adopt any measures for putting an end to the amalgamamation; indeed, the Minister formally declared, that he had no power to do so. Even if it had the power, it would probably want the inclination to attack a company which possesses some of the most eminent men of all political parties—the Comte Mole, M. Odillon Barrot, &c.

As to the turn out of the miners, nothing new has happened. In the Firming mines, the workmen had refused to strike; and in several of the Rive de Gier mines, no interruption to labour had taken place. During the week, some arrests—to the number of 20, it is said—had been made among the turnouts, who endeavoured by force to make the strike general. At the last advices, the turnouts were peaceable; and it was hoped that they would return quietly to their work after the Easter holidays—that is to-day. The company (the great amalgamated company) fearing that the strike might continue, and the supply of coal fall short, had refused to accept orders from a distance, or even to fulfil existing engagements—so as to be in a position, whatever might happen, to keep St. Etienne well supplied with coal. Perhaps, this was good policy; but it appears, that it will draw upon the company two or three actions at law, from the proprietors of establishments which have suffered from being deprived of their usual supply.

The Company of the Coal Mines and Railway of Essinac, whose head quarters are 31, Rue Lepelletier, calls a general meeting of the shareholders for 14th May, at which it will propose certain important modifications in the bye-laws, demand a great increase of capital, and the authorisation to apply to Government to be constituted a *societé anonyme*. Many more companies of coal and iron mines have last week announced their intention to adopt measures for obtaining an increase of capital. Some new companies for working mines and forges have been started—the most important being for those of Aubin, in the department of Aveyron, which requires a capital of 400,000*l.*, and of which the company is to be presided over by M. Agando, Marquis of Las Marimas. From all this, you will perceive that the "revolution" in the iron and coal industries, which commenced some time ago, has lost nothing of its intensity.

The Compagnie des Fonderies et Forges de la Loire will hold its annual assembly at Lyons, on the 23d instant. As the meeting is expected to be of considerable importance, every shareholder should either attend or entrust some other shareholder to represent him.

Capitalists continue to express great anxiety to obtain coal and iron mines and forges in Belgium. Many of them have agents in that country, who are endeavouring to induce the owners of mines, &c., to turn them over to French companies, or at least to admit French capital. If what is said be true, Frenchmen are trying to get *all* the mines of coal and iron, and all the iron establishments of Belgium, whether good, bad, or indifferent, into their own hands. Their reason for this is, that they see that coal and iron, dear though they be, will become immensely dearer in France; and they believe that, as holders of the Belgian mines, they can induce the Government to consent to the admission of Belgian coal and iron on more favourable terms than from England. In a word, they seek a monopoly in Belgium, to supplant our products. Now, it may happen, that they may be deceived in this calculation; but, certainly, the very fact that it exists, should cause our coalowners and ironmasters to look about them. The *Mining Journal* has warned them over and over again, that most important events are passing in this country, in connection with the iron and the coal trades, which imperatively require their attention. If they neglect to take the precautions which those wants call for, it will be their own fault, should they find, in two or three years time, the French market wrested from them.

Notwithstanding the high and increasing price of iron, it appears that the French ironmasters are determined to make a strong stand against any reduction on foreign iron, except such as is required for shipbuilding, and even on that they will make a fight. Unfortunately, they are a powerful body, and, with the other protectionists, possess great influence in the Chamber of Deputies. But it will be cruel to the public, and monstrously unjust to the railway companies, not to make some modification of the present exorbitant duties on the importation of iron. On this question I have collected a mass of information, which makes out the strongest possible case for a reduction; and this information I will lay before you when the subject shall come under discussion in the Chamber of Deputies, or, perhaps, before. A select committee of the Deputies has reported in favour of the concession of the Western, or Rennes, Railway to the two companies of Versailles—thus throwing overboard M. Laffitte and his company. This confirms what was said in the Paris correspondence of the *Mining Journal* several months ago.—*Paris, April* 14.

MINERAL WEALTH OF NORWAY.—Norway appears to be making progress in the discovery and production of mineral wealth. The department of finance at Christiana has recently announced for sale 8,600 marcs of fine silver (something short of 4399 lbs.), the produce of the Koningsberg mines, on the following conditions:—The silver will be made up in boxes containing from 1 to 2 bars, each of the weight of 80 to 150 marcs. The sale will be concluded, whether in bulk, or in parcels, according to the offers they may be made, and the silver will be delivered either at Konigsberg or Christiana. Payment must be made in bills of exchange, calculated in marcs banco of Hamburg, satisfactory to the finance department, and payable at Hamburg or Altona, one-half at a month, the other at two months' date. Tenders will be received by the finance and customs board at Christiana till the 30th of April, and next day (the 1st of May) the adjudication will take place. There will be no export duty to pay.

The atmospheric railway from Paris to St. Germain is rapidly progressing, and will very shortly be finished. It is greatly admired for its elegance of construction, and the solidity with which it has been carried out. The tunnel, or subterranean passage, and the viaduct, which are now completed, present an extremely picturesque appearance, and they have been executed with the greatest care. The terminus at St. Germain is nearly finished, and the gallery for passengers departing or arriving is covered with cast iron. The line will be opened to the public as soon as the directors can possibly have the whole of the materiel, &c., laid down.

Original Correspondence.

SUGGESTED REMEDY FOR THE EXISTING RAILWAY DIFFICULTIES.

SIR,—As I may honestly claim the credit of having, at a very early period, pointed out the certain consequences of that reckless spirit of speculation, which filled the land with sham railway schemes, I might, if so disposed, now exult in the fulfilment of my predictions, and take pleasure in the perplexities which are thickening round all classes of the British public; but very different are my feelings. So far from seeing with satisfaction the ruinous result of despised warning, I behold with pity the sad fruits of epidemic folly, not unmixed with fraud; and, instead of aggravating the evil by reproaching the misconduct of deluded parties, I would infinitely prefer holding out the hand of compassionate help in this season of extreme exigency. I am specially induced to adress you from the strong views I entertain of the utter futility of the proposed Government measure, designed to reach relief to the innumerable participators in distressing railway responsibilities. The Government have overlooked the important fact that, according to the just construction of the Joint-Stock Companies' Act, provisional committees are the really responsible directors of railway projects; and that *shareholders*, capable of having a voice in the conduct of the undertaking, cannot have any legal existence until the company has obtained complete registration—thus we see, at a glance, that the Government proposition, for empowering a majority of scripholders to dissolve a company, is, to invest them with an authority, which properly and lawfully belongs to provisional committees. This course of proceeding is manifestly unjust, and will, if carried out, infallibly increase the present confusion. The proposition which I would venture most respectfully to submit to the consideration of her Majesty's Government, is as follows:—Noticing the vast increase of railway projects, whose successful execution would require an outlay such as no disposable capital could possibly meet, the ministers of the Crown might recommend to Parliament the passing of a resolution whereby all further progress should be stayed of legislative proceedings, concerning railway projects, emanating from provisionally registered companies, until each committee had prepared and published a clear and full exposition of the affairs committed by law to their trust. This account of the stewardship of each committee, would prepare the way for the abandonment of all rashly-conceived and improperly-managed schemes. Expenses lavishly incurred, would be traced to their culpable authors; and the bubbles of the day would be thoroughly exposed, without inflicting injury upon *bonâ fide* undertakings.

Until some such step as this be taken, the Government and the Legislature will be groping in the dark, and, perhaps, subserving the sordid schemes of a fresh host of speculators. Justice demands that the amplest information should be afforded to the payers of deposits, as to the expenditure which has been authorised by the acting members of provisional committees, and, where extravagant or fraudulent expenses have been incurred, the law of the land will penally visit the transgressing parties. I observe that Lord Dalhousie, in introducing the Government proposition, respecting railway difficulties, founded the necessity for interference on the assumption, that railway promoters and proprietors were merely joint-stock partners. This is precisely the doctrine I have all along advocated in your Journal; I have dared to hold, in defiance of legal opinions, and even judicial decisions, that an association for railway purposes, could not become a railway company until sanctioned by Act of Parliament, and that all such associations were joint-stock companies, and, therefore, subject to all the provisions of the Joint-Stock Companies' Act; but among the provisions of the Act, is the important one of prohibiting, under penalty of 10*l.*, and voidance of bargain, all transference of, or raising money upon, scrip, until companies shall have obtained complete registration. Thus Lord Dalhousie is unwittingly placing a legal power of dissolving or upholding companies in the hands of many parties, who, if their claims were scrutinised, would turn out to be illegal traffickers in forbidden scrip! I hope the Government will relinquish their ill-considered plan; and that they may see the wise, though late, expediency of constituting an efficient Royal commission for the salutary supervision of a national railway system. With all deference to Sir Robert Peel, the highways of a great monarchy are matters which the Crown cannot safely surrender to private capitalists; and the 1200 and odd railway projects, fostered by Stock Exchange cupidity, mainly owe their origin to the encouragement indirectly given to unwarrantable speculation.—T. MULOCK: *April* 15.

ACCIDENTS ON RAILWAYS—GREENHOW'S IMPROVEMENTS.

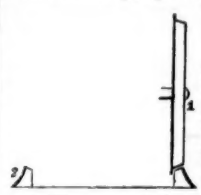
SIR,—In the *Times* of to-day, two railway accidents are referred to by correspondents (the one on the Eastern Counties Line, and the other on the Brandling Junction), both of them of a very serious nature, and which, had it not been for the intervention of most fortuitous circumstances, would, doubtless, have been attended with serious sacrifice of life—many having received severe injuries on the Brandling Line. In neither case does it appear, from the statements put forward, in what manner the engines were thrown off the rails—no obstruction, or cause, presenting itself to the parties making the investigation. I have for some time marked with interest the communications in your columns from your able correspondents, Mr. Mushet, Mr. Greenhow, and others. Mr. Greenhow, in introducing his proposed improvements in railway construction, has pretty clearly, at least to my conception, conveyed the development of his system; while, at the same time, I must confess I have been surprised, that the system so propounded, and the merits of which I believe are generally admitted, has not progressed in a manner which might have been fairly calculated upon, when economy in construction, saving of wear and tear, and safety or *economy* of life, forms so important a feature. It does appear to me somewhat strange, that the proprietors, or shareholders, in lines already completed, as well as those now in course of formation, have not well considered the defects of the present system, or the advantages to be acquired from any improvement; as, if I understand Mr. Greenhow's principle, the saving in wear and tear must be very considerable, besides the great saving in the cost of construction. I can well understand, that engineers will be slow to adopt any new principle, as, in such case, they are bound to admit the incorrectness of the system heretofore pursued, while there are but few who have courage to make such an admission. I need not state, that perfection cannot be attained, but only after repeated trials and long experience. But why the directors of railways are so determined, as to stick to a system acknowledged to be imperfect, and which is every day giving convincing and startling proofs of its inadequacy, not only as affects the loss of life, but the sacrifice of property, in the destruction of engines and carriages is a matter so serious upon which I am at a loss to determine. It is hard, under such circumstances, to understand the apathy displayed by the public, while it is clear that some one is required to take the lead, and insist on a better system being adopted in the construction of railways—at least, so far as safety is concerned—the question of cost being one which pertains rather to the shareholders; and until the public does interfere, I am afraid that neither railway directors, nor engineers, will take any trouble about the matter, so long as both are paid and the shareholders are quiescent. If things are allowed to go on as they are, in their present crude, and, as it would appear to me, imperfect state—until some accident takes place, which, from the loss of many lives, will arouse public attention—I fear we need not hope for any improvement.

If Mr. Greenhow can only accomplish one-half of what he holds out, or any one else can effect security of life, for I care not so much as to speed, it is well worth while that an investigation into the merits of the several modes of transit, whether at present applied or projected, should take place. Let, then, any member of her Majesty's Government, or some one holding office—take, for instance, the Lord Mayor of London, who has under his care hundreds of thousands of his fellow citizens—call a public meeting, to consider the best mode of providing against those accidents on railways, which are constantly occurring. Much information might thus be elicited on the subject, and then a fair ground, or basis, be established for the Legislature, being petitioned to exercise the power vested in them, when passing Acts for the different lines, to insist on the adoption of the most correct and the safest mode of construction. Much time is expended before Parliamentary committees, in inquiring into the correct calculations of the levels, or gradients, and in ascertaining if the Standing Orders have been complied with, if proper notices have been given, and such like matter, insignificant when compared with the main object, although, doubtless, necessary. While time and money are thus consumed, it is, I must say, somewhat strange that no inquiry is ever thought necessary, as to the manner, or even the practicability of the public being secured from accident; or, if the engineer be competent to construct the line on the best and most approved principle, both as regards economy and safety. I have, however, wandered from my subject. There cannot, I believe, exist the slightest doubt, but that the cause of the accidents referred to is to be attributed to a want of proper exercise of caution, and a knowledge of the principle on which railways and engines are constructed, and the power they possess; or, rather, that which, by a well designed arrangement, they might be said to have acquired. One of the trains referred to was going at great speed, while the other was wheeling round a curve; and I do not hesitate to say that, in both instances, the direct cause of the accident arose from the very imperfect manner in which the wheel and the rail are adjusted to each other, and the imperfect action caused by that maladjustment. I might further observe, that so long as the inadequate system at present in use is pursued, so long will the columns of our newspapers find ample sources from whence they may collect accounts of accidents, and coroners' inquests. I will say no more, except merely to ask the question—why we are to be exposed to the continual occurrence of those frightful and disgraceful accidents, which, apparently, might be avoided, by introducing a little science into the construction of railways, more especially, when other principles present themselves?

I am free to confess, that I am not an engineer, nor can I think of offering an opinion on the relative merits of one or the other projected improvements; but, in common with others, as reading the newspapers, I cannot but observe the fearful accidents which occur day after day, and I feel that it is not only a duty imposed upon the individual (but upon the Government of this nation), to make such inquiries, through the Houses of Parliament, or otherwise, as will at least secure to his family protection from the sacrifice of life, which is but too little regarded by the directors of railways, who are, forsooth, well paid for their direction of the money of others confided to their care. If that a public meeting were held—if that directors would think of the public safety, and not be led by the nose by their engineers—I think we should spare ourselves the painful office of discussing the reports of accidents and coroners' inquests; but, until such take place, we can only look to the press to expose abuses and to establish rights. It is with this feeling that I address you, and beg to apologize for the length of my letter, which, however, is in a measure supported by the importance of the question at issue, I remain, &c., ONE OF THE PUBLIC.

Aldermanbury, April 15.

RAILWAY IMPROVEMENTS—RAIL AND WHEEL.



1. Wheel. 2. Rail.

SIR,—I beg to submit to you and your readers a sketch of a rail and wheel for railroads, which, I think, will prove an improvement on anything of the kind yet in use, both for safety and ease in working curves, and on which I should be glad to hear the opinion of Mr. Mushet, Mr. Greenhow, or some other of your practical correspondents. T. DEAKIN.

Blaenavon, April 12.

RAILWAY IMPROVEMENTS—REED'S METAL CHAIRS AND RAILS.

SIR,—In my last communication to you on the subject of railways, in consequence of observations made by R. Mushet, Esq., I mentioned that a patent had been obtained for improvements in "railway rails and chairs," some six months ago, which appeared to embrace the views entertained by that gentleman, as to the adoption of cast-iron instead of stone blocks and wooden sleepers, now used in the construction of railways. The specification for this patent has now been enrolled, and any merit the proposed improvements possess will be ascertained by an inspection of the specification and drawings, deposited at the Patent Office. I may generally describe the improvements to consist in the substitution of cast-iron chairs, either laid detached from each other, or forming one continuous line of rail by connecting them together, affording an equal bearing to the rail along the surface of the chairs, rendering the rails less liable to bend, break, or start up, and draw asunder at their points of junction; or, the chairs and rail may be formed altogether of one casting, in certain lengths, united together at their ends, or laid at such distances from each other, as to render the intermediate space between the chairs, where the rail, of course, will have no support—a matter of prudence as to distance, dependent on the strength of the rail. By connecting two of these chairs together, either cast entire, or adjusting them with screws in the centre, between the rails, by which means the chairs may be accommodated to any width of gauge with the greatest nicety, great advantage will be obtained over the present method of securing chairs on stone blocks or wooden sleepers. By the adoption of metal instead of stone or wood, you secure this advantage—viz., a permanent indestructible line of railway; and should the cost of laying it down exceed that of the present system (which is questionable), you will, at all events, obtain a rail that does not deteriorate by the action of the weather, and save the expense of constant attention and labour by a numerous body of workmen always engaged in repairing and replacing the blocks and sleepers, which require constant inspection; this will be found to more than compensate for any extra cost in the first formation. The objection to wooden sleepers is the perishable nature of the material, notwithstanding all the Kyanising, or other process, used to insure durability; and this is the more evident at the stations where the brake of the train is necessarily so much had recourse to, in stopping the trains: at these situations on the line particularly, it is found that constant repair is necessary; the metal substituted has not this disadvantage. Nor can the gauge be kept correct, where stone blocks or wooden sleepers are used—the one is constantly getting out of gauge (if I may use the term), by pressure, and the other is equally liable to the same objection, by its perishable nature. The substitution of cast-iron is, therefore, calculated to overcome these deficiencies in the formation of railways, and, considering that so much depends on accuracy and strength in laying the rails, and preserving the proper width of gauge, to insure the safety of the trains, any method of construction calculated to obtain these advantages, ought to prevail, or at least is worthy of consideration and trial, although the first cost of construction may be greater than the mode now in use. I may observe, that railway formation is only yet in its infancy, and the best and most efficient and permanent methods of laying the rails calculated for safety is due to the public for its protection, without going into details of cost in accomplishing so desirable an object.—R.: *April* 16.

PARSEY'S COMPRESSED AIR ENGINE.

SIR,—The communication of your correspondent, "J. S. T.," is, unlike the expansive force of his compressed air, decidedly not *minus the latent heat*. I am not aware of having made any scientific pretensions; but having in my possession a common barometer, I am not ignorant of the compression of the atmosphere, and can at any time, by the aid of a little simple arithmetic, compute the amount of pressure per square inch. I am, therefore, not ignorant that 15 pounds per square inch is the pressure exerted by the atmospheric column, nearly; and that action and reaction being always equal, the air resists, or expands, with a force of 15 pounds per square inch; moreover, I am already aware, that 120 divided by 8 gives a quotient of 15—therefore the information which "J. S. T." has tendered me upon these points was superfluous. As, however, I never alluded to the pressure per square inch, or in any way made use of the term square inch, I think "J. S. T." has rather overshot his mark. I assumed 16 pounds as the amount of the expansive force exerted upon the interior surface of the air vessel; I might have assumed any other number, for I did not specify any dimensions for the vessel, so that had I assumed 120 pounds as the amount of the expansive force exerted against the interior surface of the air vessel, it would only have proved that the interior surface of that vessel was exactly one superficial square inch in extent. Since, however, I unhappily assumed 16 pounds as the amount of the interior expansive force, it merely follows, that the interior surface of the air vessel should be ·13333 inches in superficial extent; at the same time, I do not experience more difficulty in *recognising the figure* 15 than any other *figure*. Moreover, unless the vessel containing the compressed air be placed in a vacuum, the *natural* expansive force of the air is powerless, as an expansive power; there is then neither fallacy nor absurdity in saying, that the atmospheric air, when it is freed from artificial depression, is devoid of natural expansibility—at all events, the expansibility is *latent*, and counteracted by natural causes.

I shall be most happy to have the glaring and ridiculous absurdity of applying the power of elasticity to set in motion a railway train exposed by "J. S. T.," whether the elasticity of steam or steel be the force made use of to set the driving wheels in motion. Perhaps, if I had instanced the fly wheel of a powerful rolling mill, set in motion by the spring, or elastic force of steam, acting upon the piston of the steam cylinder, and communicating, by means of levers, cranks, and toothed wheels, a high velocity to that fly wheel, I should have brought my comparison up to the level of "J. S. T.'s" understanding. In the meantime, I can assure "J. S. T." that it is not only possible, but easy, to set a locomotive carriage in motion by means of *clock work*, and to continue its motion until the moving power requires renewal. If "J. S. T." can compute the force exerted by a steel spring 6 feet wide, $\frac{1}{4}$th of an inch thick, and 30 feet long, wound up upon a cylinder 12 inches in diameter, he will, perhaps, find that this force is not quite so contemptible as he appears to consider it. R. MUSHET.

Coleford, April 13.

ON THE CLANNY AND DAVY SAFETY LAMPS FOR MINERS.

SIR,—In your remarks, on Saturday last, as to my observations made on Dr. Reid's eulogium on the Clanny safety lamp, at the Society of Arts, you have made several mistakes, which I feel necessary to correct; and as I cannot for one moment imagine you have done it intentionally, I beg of you, therefore, to insert these corrections. It is stated, that Dr. Clanny was the first introducer of the safety lamp. Now, it was the "fulsome eulogy" on the lamp, and the unsparing manner in which Dr. Reid—(for I did not know who he was at the time)—run down the valuable invention of Sir H. Davy. My plan is always to give merit to whom merit is due; and I never wish to say or attack behind the back any party, but what I will fearlessly contend for before his face. That Dr. Reid, in the most plain and undisguised form, run down the lamp of Sir H. Davy, and made statements relative towards it, which I dared him prove, and while he held the Clanny lamp so superior. I have no object in view but one—that is, the best lamp for the miner's safety; and I felt glad to have the opportunity of seeing the Clanny lamp there, as I had heard so marvellous an account of it,—and being a practical lamp manufacturer, and one whose opinion on them will surely be accepted even by those who are able to form an opinion, I felt delighted to see and give it a character, as far as my abilities went, and to state my objections as far as they might appear. That I did so in a plain, candid way, to the satisfaction of those hearing me, I believe will be allowed by all; and the new ideas which the Dr. gave about a spark from the wick "blowing up the mine," was about as new as the term he gave—"the zone of combustion." Flummery I hate at all times; and good sound common sense is much wanted at the Society of Arts, in discussing those improvements and novelties. However showy they may appear, if they militate against the safety of mankind, they ought to be very charily adopted. We merely heard the merit of this lamp discussed as a *sine qua non*, or rather the *ne plus ultra*—while to those who knew better, it was for a purpose, that the lamps of Muescler and Murray, both superior in every point of view to this pet lamp of Dr. Reid's, were never mentioned; and Clanny's, which was proved by his own diagram on the board to be the most likely lamp to fire a mine, from its drawing the very combustible gas right upon the flame of the lamp. It is there it has a glass liable to be broken; and when broken, it leaves the miner, perfectly unprotected, at the mercy of the foul air. Nay, more! I eulogised the lamp of Dr. Murray, of Hull (not of Edinburgh)—to whom I paid but a just mark of respect, by stating the truth. He is one of those geniuses of the age, whose time and talent has been devoted to his country's welfare, and who does not clog or mar his knowledge by the humbug of technicalities, but speaks and writes so plain, and so free from the mysteries of the learned would-be's of the present day, as of the middle ages, who wished to keep their lights under the triple *gause* of conceit. He comes so plainly above board with his useful improvements, that "he that runs may read,"—in fact, to the level of the plainest understanding; and I had the double satisfaction of stating, that his truly scientific lamp was not alluded to by the learned Dr., though it is, and will be, approved by every scientific or practical man, who really searches for facts, and who despises all theories not backed by practical experience. Nor do I wonder at the Dr. wandering miles in safety with the "Alladin lamp," when he took good care to see that the gause of the same was in perfect condition. The Davy lamp, I have not the least hesitation in stating, from what I have seen and heard from those whose information and experience always can be depended upon—practical miners who use them and do not abuse them; but if parties by neglect forget that time and continued ignition will impair and destroy the wire gause, which is the only protection and merit of the lamp, and the said gause becomes broken and displaced, what other can be expected but accidents from such a cause? and I firmly believe, that if the real truth were stated, the whole of those accidents are not the *fault* of the Davy lamp, but the *abuse* of them, owing to their not being mended when out of order; and like a rope when half cut through, is left still to convey the men to their labour, until some 5 or 6 of them descend to the bottom, and are killed—an every day occurrence; as well might that rope be condemned, as being bad, after a service of, perhaps, six or eight months,—and when half cut through, it was expected to be equally useful and trustworthy. But if some scientific gentlemen would look more to the good of science and society, in place of serving a purpose or a party spirit, or in taking a one-sided view of inventions—test its merits, and allow others fearlessly to do the same;—for no real inventor, who deserves that name, will be afraid: he knows he stands or falls by the merit alone of his invention. Therefore, no adventitious aid, or fulsome eulogy, will add to its success, or cause the public to view it in a more favourable light; and, therefore, when such barefaced clap-trap is given, it only disgusts the right thinking—it also ruins the prospects of an institution such as this, and men of superior talents turn away with disgust, in place of coming to exhibit many highly useful and important inventions, because there is no novelty or gaudy attractions about them to draw the novelty-seeking groupe, who cannot be taken by their utility, because not dressed-up in borrowed feathers. That the article shows, that the doctor has been sparingly dealt with: as regards the display of this lamp, and the observations he made thereon, as to the blowing of the air through the gause, such must have arisen when the gause was really removed; for under no other way, unless it was broken or split up, it could have enabled it to do so, as he pretended it did. The glass was also stated to be so wonderfully changed in its nature as to become malleable, merely because the duty was taken off! I merely, in conclusion, state that I have no feeling towards Clanny, Reid, or Davy—neither have I seen nor spoken to any of them but Dr. Reid, at that meeting—but I know the lamps, and know their qualities, and I have here given an opinion as to what is good or bad in either in the spirit of candour; and also, knowing that the safety of my fellow-man entirely depends upon their efficiency, to add to which is my sincere desire, and to prevent the many accidents of daily occurrence in our many extensive mines.—R. RETTIE, C.E.: *April* 13.

SUBMARINE TELEGRAPHS.—Among the wonders of the present age, which the inventive genius of man has brought to his aid, by which time and distance are comparatively annihilated, is the electric telegraph, and while those on our present railways excite the wonder and admiration of all, a project is said to be about carried out, which will entirely eclipse them—this is no other than an intended telegraphic communication across the Channel from Dover to the French coast, and, when accomplished, the French authorities, who have the control of all the telegraphs, in the kingdom, will then continue it on to Paris and Marseilles. The two Governments have given permission to two gentlemen, the projectors, to lay down the wires of communication from coast to coast; and, if successful, another will be established between Holyhead and Dublin. The soundings across the Channel are about 37 fms. in the centre, with a tolerably regular sweep to about 8 fms. near the shores; the wires are now being insulated and prepared, and it is expected they will be placed in proper position early in June. Thus, if these attempts are successful, one continued line of instantaneous communication will be established from Dublin to the extreme south of Europe, and which will, doubtless, afterwards be extended north and east; and a still more gigantic plan has been taken up by the French—viz., to connect Algeria by the same means with the port of Marseilles. Although much scepticism naturally exists as to the possibility of carrying out these works in the first instance, or of their remaining any length of time without damage, which will take months to repair, still the projectors are confident of the most complete success.

A silver wire, the 13th of an inch in diameter, will sustain 137 lbs. A wire of lead, of the same size, sustains 28 lbs., and tin 36 lbs.

THE PIN TRADE.—There is much talk amongst scientific persons, and those to whom the welfare of our home manufactures is of interest, respecting the improvements recently made in pin making; improvements which have already caused preparations for closing many large works on the continent. The machinery by which the new pin, to which Mr. Kirby of Newgate-street, the holder of the patent, has given the name of the "Regina," is of the most extraordinary character. Strings of wire enter it upon the one side by thousands, and almost immediately appear at the other, as pins in the most perfect form, literally headed and pointed to a degree of perfection defying mycroscopic power to detect a fault in shape and finish. The sticking of the pins into paper is likewise completed by the same machinery in an incredibly regular and rapid order; and it is a curious fact and not the least gratifying, that, although the latter operation is accomplished by this invention, the great demand caused by the enormous reduction of the price of the pins necessarily calls together three times the number of female assistants for their "preparation" and "making up," and at more remunerative wages than by the old system.—*Globe.*

Proceedings of Public Companies.

MEETINGS DURING THE ENSUING WEEK.

MONDAY.....Direct London and Manchester Railway—London Tavern, at One.
TUESDAY.....Callington Mining Company—office, at Two.
Hayle Railway—office, at Two.
Guardian Assurance Company—office, at One.
Grand Surrey Docks and Canal—office, at Eleven.
Direct London and Manchester—London Tavern, at Three.
THURSDAY.....Union Gold Mining Company—George and Vulture Tavern.
East Wh. Kitty Mining Company—Pearce's Hotel, St. Agnes, at Seven.
Reversionary Interest Society—office, at Twelve.
London and Blackwall Railway—London Tavern, at Twelve.
National Mercantile Life Assurance—office, at Twelve.
Legal and General Life Assurance—office, at One.
Globe Insurance Company—office, at One.
Trent Valley Continuation and Holyhead Junc.—London Tavern, Twelve.
SATURDAY.....Irish Great Western Railway—offices, at One.

[*The meetings of Mining Companies are inserted among the Mining Intelligence.*]

CALEDONIAN RAILWAY COMPANY.

A meeting of this company was held on Thursday, the 9th inst., in the Royal Hotel, Edinburgh—Mr. HOPE JOHNSTONE, M.P., in the chair.

BILLS BEFORE PARLIAMENT.—The CHAIRMAN said, the first business before the meeting was to obtain the sanction of the shareholders to the bills now before Parliament for making various branches and extensions; and, although these branches and extensions had already received their sanction, it was necessary, in accordance with the Standing Orders of the House of Lords, that the bills constituting the same should be submitted to the shareholders, after being introduced into Parliament. He had only further to mention, that the bills had been all read a second time in the House of Commons, and were ready to go into committee on an early day in May.—The SECRETARY then read the headings of the different bills, which were 11 in number.—The CHAIRMAN then formally proposed, that these bills should be approved of, which was seconded by Mr. ALEX. HASTIE, of Glasgow, and agreed to.—Mr. BLACKADDER, Edinburgh, asked if it was the opinion of the directors that all these bills should be carried out in the present circumstances of the country?

The CHAIRMAN said—With regard to some of them, it was very desirable that they should be carried through as quickly as possible; for instance, the bills for getting access to the centre of Glasgow, by crossing the River Clyde, were of considerable importance, inasmuch as they would afford great public accommodation—tend very much to facilitate the accommodation between Edinburgh and Glasgow—and be of great advantage to the interests of the Caledonian Railway Company. (Hear.) It was very desirable that the branch which went from the Caledonian Railway to Granton should also be carried out; because, in the opinion of the directors, it would afford means for shipping the mineral traffic which was expected from the upper part of the district of Lanark. Some of the others they might postpone for a little time, but this would be matter for future consideration, in which they would be guided by the circumstances of the country, and the state of the money market. (Hear.) Certainly the two schemes to which he had referred were considered by the directors to be the most urgent and important; and he might mention, that the half of the Leith Branch was to be paid by the Granton Junction Company, and he might also state, that they were in hopes of coming to some arrangement with the Edinburgh and Northern Company in reference to this matter.

Mr. BLACKADDER thanked the chairman for the explanation he had given, and said, that great alarm was now felt by many people at the prospects of bills being passed. Formerly railway stock got high in the prospect of bills being carried through Parliament; but now-a-days this circumstance had a tendency rather to bring stock down to nothing. He had great hopes, that the chairman and the other directors of the company would be very cautious in carrying these bills into effect, if Parliament should pass them; and he had no doubt, that the shareholders would be perfectly safe in leaving this matter in their hands, as they would act as prudent men in not calling very frequently upon the shareholders to pay money, but would be guided by circumstances.

CONDITION OF RAILWAY LABOURERS.—Mr. BLACKADDER called the attention of the directors to the condition of the labourers on railways.

The CHAIRMAN said, the subject had occupied, to a considerable extent, the attention of the directors, and that arrangements had been made on the southern extremity of the line, where the greatest number of men were congregated, for the religious instruction of the labourers, and for the education of their families. (Hear, hear.) The amelioration of the physical condition of the labourers was a very difficult subject to deal with. Every provision had been made to make the circumstances of the huts as comfortable and convenient as possible. With reference to the truck system, it could hardly be got rid of in unpopulated situations. The directors, however, would not fail to inquire into the subject.

AMALGAMATIONS.—The CHAIRMAN said, that in bringing before the shareholders the agreements which the directors had thought it advisable to make with the Glasgow, Paisley, and Greenock Railway, and with the Glasgow, Barrhead, and Neilston Direct Railway, subject to the approbation of the shareholders, he wished to enter into a short explanation of the grounds which they thought rendered it very desirable that the Caledonian Railway should form a close alliance with these two railways. In the first place, in regard to the Greenock Company, considering the great amount of mineral traffic which they might expect to take down from the upper part of Lanarkshire towards Glasgow, and considering the very crowded nature of the harbour of Glasgow at the present time, and the opinion that had been expressed by a very high authority in reference to the river and the state of the harbour, and the necessity of a very considerable extension to the harbour at no distant day, they thought it of very great consequence indeed to the Caledonian Company, that they should have a direct access to some deep-sea harbour, where the shipment of a considerable proportion of the mineral traffic that would come along their line could be effected without that embarrassment which must occur in a crowded river such as the Clyde, at the harbour of Glasgow. The directors also thought, that it would be of great consequence to establish direct connection with the large additional body of people in that district of country, consisting, on the line of the Greenock Railway, of a population of more than 100,000 persons, exclusive of the rural population. The circumstance that such of these individuals as come to Edinburgh, without having occasion to stop at Glasgow, would be enabled to come directly here, by means of the Caledonian Railway, without a change of carriage or inconvenience, was, in the opinion of the directors, a very important matter for the general traffic of the Caledonian Railway. The number of passengers that passed along the Greenock line, amounted annually to nearly 1,000,000. Taking the smallest portion of these as coming through to Edinburgh, the meeting would at once see that this would add most materially to the productiveness of the Caledonian Line itself. These were the two great reasons which operated on the minds of the directors in wishing to form an alliance with the Greenock Railway Company. He then stated, that the following were the terms on which this arrangement was proposed to be carried out.

1.—The holders of the ordinary capital of 500,000*l.* of the Greenock Railway are to be guaranteed a minimum dividend on the amalgamated lines at no time below 4 per cent.; the holders of the said Greenock stock to receive, in addition to the guaranteed dividend of 4 per cent., an additional dividend of the same amount as that by which the dividend on the amalgamated lines exceeds 5 per cent.; the Greenock shareholders thus receiving always 1 per cent. less than the holders of the Caledonian stock, until their dividend falls to 4 per cent., and never falling below that rate.—2. That such dividend shall commence to be payable at the time when the first dividend is paid to the shareholders of the Caledonian Railway; the Greenock shareholders, in the meantime, drawing the profit, realised from their own line, and keeping up their works in the same condition as at present, until the amalgamation takes effect.—3. That the new branches projected by the Greenock Company will be subject to the disposal of the Caledonian directors, who shall have power either to abandon or to proceed with them, and raise the capital for the same in such manner as they think fit; the Greenock Company proceeding with the application to Parliament for these works in the meantime, until the Caledonian directors resolve what they shall do in the matter.—4. That the Caledonian Company shall have the option, for five years after the opening of their line, to amalgamate the two railways at the par price of the respective stocks, without any guarantee or difference of dividend. It might appear a little startling to offer the Greenock Railway Company a guarantee of 4 per cent., as it was well known that, at the present moment, the dividend paid by that company was very small—not exceeding 2 or 2½ per cent. He thought, however, that the value of the Greenock Line, when united with that of the Caledonian, could not be determined by considering the traffic that at present passed along it. At present it was an isolated line. They knew the extent to which coal was deteriorated by frequent changes of carriage; and they also knew that change from one carriage to another enhanced the price of the article, so that this process was hardly ever gone into at all. As a practical illustration of the manner in which this had operated to change the mineral traffic, he would just state, that while the consumption of Greenock was 260,000 tons of coal, the export was 40,000 tons; and of the whole of this quantity only 30,000 tons were carried by railway. Now, he had not the least doubt, did the line communicate directly with the Caledonian Company, at least one-half of the whole amount of coal used in, and shipped from, Greenock, would be carried along that railway. Taking the most moderate amount of remuneration—say, only 1s. per ton for this transit of 23 miles—they would at once see that this would form a very large item, and would go a great way, indeed, to meet the additional guarantee. They also very well knew that a short line—such as the Greenock Line was—was worked at a very great expense, and that, when conjoined with another railway, it was both worked cheaper, and a saving was effected in the management—one set of officers serving for both railways. That saving alone was estimated by the engineer at not less than 50,000*l.* a year, so that, putting out of view any advantage which the Caledonian Railway would derive from an increase of coal and passenger traffic, this item alone would render the transaction not only a safe one for the Caledonian Company, but an exceedingly advantageous arrangement. It was on these grounds that they had submitted the proposition for the amalgamation to the meeting, in the hope that it would be favourably received. The same reasons applied also, except as regarded the shipping port, to the Barrhead and Neilston Direct Railway. That railway was proposed to run through a rich mineral district, and one of the most densely-populated in the neighbourhood of Glasgow. It was to be in connection with Kilmarnock; and they could not doubt that it would draw all that district of country to the Caledonian Railway. The following are the terms of agreement:—That the Glasgow, Barrhead, and Neilston Direct Railway's original capital of 150,000*l.* be amalgamated with the Caledonian Company's capital as preference stock, guaranteed 8 per cent. That such additional capital, as might be required for doubling the Barrhead Line, and forming the branches contemplated by that company, should, to the extent of 150,000*l.*, be amalgamated with the Caledonian Company's capital, as a preference stock, guaranteed 6 per cent.; any capital beyond that amount which may be required for this purpose, being issued to the shareholders of the amalgamated company, and not guaranteed; and Mr. Locke having the power to determine whether any of these works should not be executed. That the guaranteed dividends, above referred to, shall begin to run from one year after the dates of the opening throughout of the lines respectively. That all matters, not specially fixed as above, and all differences that may arise between the parties, be referred to Mr. Locke; whom failing, to the engineer of the company. The chairman concluded, by moving the adoption of the two agreements, which was carried unanimously.

Thereafter Mr. BLACKADDER moved a vote of thanks to the chairman, which was carried by acclamation.

ARGUS LIFE ASSURANCE COMPANY.

At a meeting of the proprietors, held at the offices of the company, on Tuesday, the 7th inst.,—Mr. Ald. FARNCOMB in the chair,—the balance-sheet of the company's accounts for the year ending 31st of Dec., 1845, was submitted. From the report, we collected that the company had been established above 12 years, the annual income being upwards of 60,000*l.*, which is progressively increasing, and the number of policies issued being 5324. The accumulations of the assurance fund invested in Government and other real securities, amounted to nearly 250,000*l.*; of which sum above one-third, being the surplus income, had been added to the fund within the past three years—while the amount realised by dropped and purchased policies, within the last twelve months, was 11,176*l.* 5*s.* 6*d.*—The report having been read, some discussion ensued, as to certain proceedings in which the company had been involved—and to which attention has, on a former occasion, been directed in our columns. The evident, and, we may add, unanimous, feeling expressed by the proprietary, was in favour of the course pursued by the directors, who, it was considered, were highly deserving of the thanks of those assembled, for the interest they had evinced in promoting and protecting that of the proprietors at large.—A conversation, of a general nature, ensued, which ended in a vote of thanks being given to the chairman and board of directors, when the meeting separated.

ON THE CHEMISTRY OF THE STEAM-ENGINE.

BY T. CRADDOCK, ESQ., BIRMINGHAM.

LECTURE V.—On the economy which experience proves is thereby attainable—On their application to steam-vessels, to locomotives, and to stationary-engines, with some farther remarks on the extended range of utility, which the foregoing facts will make apparent. [*Continued.*]

It must be borne in mind here, that the boiler thus condemned, in this report, was the first attempt at a thing of the kind; and that, as I have said, not with a view of continued practical use, but merely to test the principles; yet the boiler is still in work, and confirming, beyond a question, the soundness of the principles therein embodied. All that is required to make it as durable and as free from derangement, and much more free from danger, than the usual Cornish boiler referred to, is a little more experience in its construction, with a better proportioning of it for its purpose; nor would it be more expensive than the Cornish boiler for the production of the same power. "The condenser I believe to be efficient when water cannot be obtained, except at a great expense." As I do not propose to condense with air, where water is obtainable, I have nothing more to add on the last clause of this paragraph, whilst the former is a commendation of the most vital part of my invention.

"The damper is, I believe, an improvement upon anything previously brought into use." Here again I shall offer no comment.

"I do not feel warranted in saying more, in reference, to the comparison, than that in ordinary cases, where economy of fuel is desired, and where water is plentiful, I should recommend the use of the ordinary high pressure expansive and condensing engines. And where water is not plentiful, I believe Mr. Craddock's condenser may be applied with great advantage. Of course, always bearing in mind, that I consider the whole of the mechanical details of the engine and condenser require revision and modification.

"FOX, HENDERSON, AND CO."

The last paragraph quoted, I fear, would carry the implication to many readers minds, that I propose my mode of condensing with the atmosphere as a substitute for the Cornish engine, where water is plentiful, as this is the engine referred to in the first part of the last paragraph of the report. Let it be clearly understood, that I propose no such thing, and no farther comment is needed from me on this paragraph; though I could have wished that my acknowledgment of the defects of construction and arrangement the report so amply displays had been stated therein. We come now to Mr. Cowper's report to Mr. Henderson:—

TO MR. HENDERSON.

"Sir,—I have to report the following in reference to 'Craddock's Universal Condensing Engine:'—The condenser is now, after many months' work, quite as perfect and air tight as it was when first stationed. There is no appearance of wear or deterioration of any kind having taken place, excepting, of course, the stop brass, which is somewhat worn." The condenser has continued to give a very steady vacuum of 22 or 23 inches of mercury, according to the work put on, and the state of the weather, which does not generally effect the vacuum more than about one inch of mercury. The condenser requires about one and a half horse-power of the engine to drive it; but it enables one to obtain a much larger amount of power, in consequence of the vacuum obtained, and the means it thus gives of using more expansion than would otherwise be possible with a high pressure engine, supposing water to be scarce or expensive. The boiler is no doubt very safe, as, even in case of a tube giving way, no serious danger would occur to any person. But the circumstance of there being so small a quantity of water contained in the boiler, necessarily occasions a greater irregularity in the pressure of the steam, supposing the fire to vary somewhat. The self-acting damper is a very ingenious contrivance, and answers its purpose very well; it is applicable to any boiler, whether high or low pressure, and is a great help in keeping the pressure of the steam regular in the boiler.

The indicator figures I have taken off the engine show that a vacuum of 9 lbs. per square inch is fully realised in the large cylinder, supposing steam of about 80 lbs. pressure per square inch to be used in the small cylinder of the engine.—E. A. COWPER: June 15, 1844."

On Mr. Cowper's opinion I will say no more, than that it is a perfectly fair and candid one. For the essential service which Mr. Cowper has rendered me, I would most sincerely thank him, as, if my labours, ever hereafter, should be considered of any value, Mr. Cowper is entitled to the acknowledgment of having rendered me valuable service in their prosecution. Having laid before you Mr. Henderson's report, with Mr. Cowper's opinion appended thereto, I now proceed to give you the experiments made by myself and Mr. Cowper on the engine when at Smethwick. These experiments I have given in my pamphlet, in conjunction with a description of the engine and invention. The substance of these experiments is as follows:—The engine is one with two cylinders, the high-pressure piston has an area equal to 38·5 square inches; the velocity of this piston was 146 feet per minute, the average effective pressure on it being 77·82 lbs. per square inch. This will be found equal to 13-horse power and 8427 lbs. lifted one foot high per minute. On this steam passing into the lower pressure cylinder, which has 156 square inches area in its piston, and travels through 220 feet per minute, the average effective pressure on this piston being 10·16 lbs. per square inch, this will be found to give 10-horse power and 18,691 lbs. lifted one foot high per minute. The gain produced in this experiment by the vacuum is equal to 9-horse power in 24, beyond that which could be obtained without condensation. Now this is very far from being a favourable experiment; for we found immediately after this experiment, that the slide valve of the low pressure cylinder allowed a part of the steam to pass directly through into the condenser, for want of a sufficiency of lap. And we found, on applying a new valve, that a less pressure of steam in the small cylinder gave nearly 1½-horse power more in the low pressure cylinder than in the experiment I have adduced, as the second set of figures in the pamphlet indicate. We now proceed to the deductions to be made from this gain of 9-horse power in 24, on account of the working of the condenser and air pump by which it was obtained. Here we found that the condenser required 1½-horse power to drive it, the air pump not quite 1-horse power; so that we have to deduct from 9·2½-horse power, as that induced to produce condensation with the vacuum. It is but fair that I call your attention here to the fact, that the above results were obtained from the first engine ever constructed on the principles I am here treating of, which are those of condensing by air with the production of a vacuum. They were made as long back as April, 1844. I grant, that if we contrast the vacuum I am here speaking of with the 13 lbs. or 14 lbs. commonly produced by water condensation, it certainly is inferior to it; but, as I before have explained, I would only use the air where water is not obtainable; and than the 9 lbs. are much more in advance of no vacuum than are 14 lbs. in the engine, which condenses with water in advance of these experiments. But, I may ask farther, did the first engine of the class which condenses with water come forth in all its perfection in the first attempt? We know it did not. So also do I know that results far superior to those I have given will very shortly be attained. The quantity of water passing through the engine in the above experiment was 8 cubic feet per hour; from this there was produced, as we have seen, a gross power equal to 24 horse. This, then, is the experimental data obtained under all the disadvantages of a first experiment, with a combination of principles involving much that was new and untried before. It therefore, I think, cannot be alleged against me, that I have taken any thing for granted in the observations I have made, or shall make, in reference to the economy which we can command by high pressure steam, used expansively, with a vacuum. I shall, therefore, say no more in attestation of the fact, but proceed to point out the results which will flow from its application to locomotives, marine engines, and stationary ones. On its application to locomotives, I have thought much, as we had at one time determined on constructing a locomotive upon the principle. Without intending to insist upon a rigid application of these principles in the manner that seems to me best, I must however observe, that combinations of principles, when thoroughly and effectually carried out, often exceed our anticipations in their good results; whereas, on the mutilating or expediency system, experiments often end in a complete failure. With these impressions, and the experience and observation I have been able to obtain, I feel assured that if effectually and thoroughly carried out, they would produce such economy, convenience, and comfort, that at present would not be credited. The best mode of applying these principles, as it appears to me, for locomotive purposes, would be to construct a tubular boiler, having as great a number of ranges of tubes placed about a foot apart, with the fire grates running the whole length of the boiler, being supplied with fuel at both ends. By this means, we should get a large grate area with a great extent of tubular surface, for the heat so generated to be absorbed by; so would this arrangement give us the other condition we have seen so desirable—viz., the mixing of the surface with the heat produced. I have suggested the grates to be a foot wide; but experience alone can determine the best width of grate, as the narrower the grate the better would be the absorption of heat; and so also would it enable us to pack more surface or tubes into little room. But the limiting cause here will be found to be, that if we carry this principle too far, we shall find that we should absorb the heat too quickly, so much so as to reduce the fuel in temperature below that which would continue combustion. This I have verified by some early experiments of mine with a tin boiler, in which I subdivided the fire so such an extent with water as quickly to carry away the heat from the fuel, so much so as scarcely to permit of continued combustion; yet I am disposed to believe that, with such temperatures as high pressure steam, such as I have been speaking of, would give, the grates may be narrowed even to nine inches without materially retarding combustion. It will readily be perceived that, as far as practicable, it is desirable thus to mingle the surface with the heat produced, and thereby obtain the advantages the tubes of our present locomotive boilers are so effective in securing. I am the more desirous of pressing this kind of boiler, because a very extensively generating boiler would be made to occupy little room, thereby leaving us the front part of the locomotive frame-work, or carriage, for the fixing of the condenser, which I should propose to be in front, where the chimney now stands. I should also propose that, to insure the most economical use of the steam, that the twin cylinders, of which I have before spoken, be applied much in the same way as the cylinders are at present. We should then have a combination of the high and low pressure engines, winging their way along our railways. By such an arrangement as the above, I feel assured that engines capable of drawing similar trains with those which now evaporate 120 cubic feet of water per hour may be placed upon frames or carriages of the same dimensions. The railway, in as far as condensation by the air is concerned, is well adapted to effect the purpose. The condenser would, a great part of the time, not require motion, or if so, only a slow one, merely for the purpose of presenting all its parts in succession to the cooling current produced by the onward motion of the train. The condenser also would be entirely at the control of the engineer, to give to it such motion as the occasion required. This is one of the adaptations of this mode of condensing—that, by giving it a more or less rapid motion, we can considerably increase its condensing power. We should in this way dispense with the tender altogether; nor should we want but a very small quantity of water, if any, over and above that contained in the boiler for the longest journey England presents. I may mention, as an illustration in proof of this, that I once worked an engine for four weeks without the addition of any water to that contained in the boiler at the commencement of the experiment. The boiler was one of the common cylindrical kind; it was three parts full at the commencement of the experiment, and at the termination was half full; the quantity lost being equal to four gallons per day. It will at once be seen, that by my mode no loss of water can take place but that which leaks through the joints. Therefore, could we keep our joints perfectly tight, the same water may circulate through the engine for years. The advantages which will arise from this fact, in enabling us to dispense with the now expensive means of obtaining water for the engines, is not an insignificant item or recommendation in favour of the principles I advocate. Another thing to be desired, which would result from such locomotives as I am here speaking of, is, that we should have no noise from, or even appearance of, steam; and, perhaps it may be said of such a locomotive, as hath often been said of my condenser, that it is the wind that drives it. But, to approach its application to the railway by a more direct and practical comparison, both with the locomotive and atmospheric systems. For this purpose, I avail myself of experimental data, given in the *Mining Journal* of the 25th of October, adduced from an experimental trip on the Croydon line. I shall also refer for data, to Pambour's experiments on the locomotive system. I shall take the before-mentioned experiments, made at the London works, as the foundation of my conclusion as to the capabilities of my system. Is it objected that the atmospheric system is in its infancy? Is it said that the locomotive system has made progress in its economy since Pambour's experiments were made? I reply, that my system was not less in its infancy than can be the atmospheric mode. Not greater progress has the locomotive system made in attaining greater economy, from the time of Pambour's experiments to now, than what I shall be able to show the system I would contrast with it has attained since the experiments I adduce were made. Moreover, I am sure that neither of the systems contain more of latent usefulness than will accrue from the unfolding of the principles I am about to show, from fair data, are at present equal to surpass both the one and the other in economy and adaptation. To commence with the experiments on the Croydon line; we are informed that the vacuum on the exhaust side of the propulsion tubes was equal to 27½ in. of mercury. It is much to be regretted, that in such an experiment, there was not a gauge to indicate the pressure on the atmospheric side of the piston, as then we should have had positive knowledge as to the amount of impulsive force imparted to the piston. In the absence of such knowledge, I have assumed 12 lbs. as the impelling force per square inch upon the piston. The velocity of the train is stated to be 40 miles per hour, composed of 7 carriages, the gross weight of which being 40 tons. The first item which here presents itself is a force of 2112 lbs., moving at the velocity of 40 miles per hour. The traction of the train, 240 lbs., and the resistance from the air 602 lbs.—making 842 lbs. as the resistance opposed by the train to the piston. This leaves 1270 lbs., or nearly two-thirds of the entire force imparted to the piston, to be accounted for, by its friction in the tube, greater diminution in the pressure of the atmosphere on its impelling side, than I have allowed for with the obstructions offered by its other appendages. It may not be amiss for me to remark here, that I have supposed the line to be a level one. Nor is it material, by way of comparison, that I have determined the resistance from such a train at such a velocity at its exact amount, so long as I take the same resistance to oppose to the three different systems, they will be at least relatively accurate, though absolutely I may not be within a fraction of the exact resistance. We are informed that two engines of 50-horse power each produced this vacuum. If, therefore, in making these calculations, occurred to me as somewhat strange to find at the propulsive piston a force equal to 240-horse power. But my surprise was dissipated on perceiving that these engines were at work 30 or 35 minutes in producing the vacuum, which gave motion to the train during only 9 minutes. We find, therefore, that the actual amount of horse power consumed in propelling this train must have been at least 330 horse. Yet at the piston, to take the entire vacuum, we have only 259-horse power, leaving 71-horse power, as absorbed in friction and leakage before it reached the piston; and ere it arrives at the train, we find it reduced to 90, as shown by the friction of the train and the resistance of the air. From the data before me, I have drawn, as I think, a just conclusion, in so far as impartiality is concerned. I have elsewhere seen the power produced by the aforestated engines, in the experiment alluded to, as 400-horse power; but for my own part I would always rather keep within the bounds which may be warranted than exceed them, and appear invidious towards the introduction of new combinations. We go now to ascertain the quantity of steam requisite in the present locomotive to produce 90-horse power for the purpose of propelling such a train. The engine for such a purpose would be at least 12 tons; the tender 6 tons; traction arising therefrom 108 lbs., resistance of the air 86 lbs. We have, moreover, the increased friction which 18 tons produce on the engine, equal to 28 lbs. Another very considerable drawback in the locomotive is the resistance from the jet, which we have before noticed, and which would, in this case, destroy a power equal to 20 horse. So that the gross power which the present locomotive consumes, in that which pertains to it as an engine, is traction atmospheric resistance, with the increased friction from it, and the tender. This equals 23-horse power. Add to this 20-horse power lost by the jet, we have 43-horse power absorbed by the engine and its appendages; to which must be added the above 90-horse power with which to propel the train, making 133-horse power as that required to propel the same train at the same velocity as we have been on the atmospheric system required 330-horse power. I omit the friction due to the mechanical organs of the engine, both that which it directly produces in itself and that arising from the resistance of 40 tons at 40 miles per hour, because, whatever engine is used, this resistance cannot vary materially. Before proceeding to a comparison of the economy which would result in the application to the locomotive of the principles I have in these lectures set before you, I will endeavour to draw a closer comparison in point of cost of motive power, between the locomotive and 'atmospheric system; for it does not follow as a necessary consequence that, because 330-horse power are, on the atmospheric system, required to propel the train which with the locomotive is effected by 133-horse power, that, therefore, the latter is the most economical in fuel or motive power. As it is here requisite to know something like a just comparison between the cost of the motive power in both cases, to determine the cost at which the motive power is produced per horse power, we shall not be very unfair in our comparison if we suppose 1 lb. of the best coals to convert as such water into steam in the boilers used on the atmospheric principle as 1 lb. of coke does in the locomotive boiler; if the coke were double the price per ton of the coal, then would double the weight of steam be produced at the same cost in fuel. The next question is, the difference between the amount of power which any given weight of steam would produce in the two systems. Now, there can be no question, that if the steam were generated at the same pressure in the stationary engine as in the locomotive, and used expansively, as in Cornwall, that the same weight of steam would produce a two-fold amount of mechanical effect in the stationary engine beyond what it is capable of in the locomotive of the present day. We, therefore, see that, in as far as the cost of fuel is concerned, the atmospheric system may surpass our present locomotive in cheapness of propelling trains on our railways. This brings us to the question, which will one day or another force itself upon railway engineers, whether or not the great economy of the Cornish engine cannot be obtained in the locomotive. I believe it can, and will therefore give as much practical evidence in favour of this opinion as is within my reach. I would have it be remembered here, that my premises are founded on the unfavourable data, adduced from the experiments of my engine before referred to. I have pointed out what seems to me to be excrescences attaching themselves to the locomotive for the want of those means which would enable us to avail ourselves of those economical principles now confined to the stationary engine, and exhibited especially in the Cornish one. I have shown you, I trust, that these principles are now to be obtained through the agency of the atmosphere; and, therefore, the question is reduced to the economy which would result from them, and their adaptability for railway purposes. I have above given my views of the latter; I will, therefore, conclude my remarks on this head by adducing a practical comparison of the three different systems we have been considering.

[*To be concluded in next week's Mining Journal.*]

IMPROVEMENTS IN STEAM-SHIPS.—An interesting and successful trip has been made with the screw schooner *Waterwitch*, built at Dumbarton, by Messrs. Denny, and fitted with engines by Messrs. Caird and Co. The *Waterwitch* is built for the City of Dublin Steam-Packet Company, and is completely rigged as a three-masted schooner. She has also had applied, as an auxiliary to be used in calms, or in case of contrary winds, an Archimedian propeller, and in the trip this propeller alone was used, none of her canvas having yet been attached. She set off about half-past 12, and in 50 minutes reached the Cloch Lighthouse, six miles, with a strong breeze blowing from the westward directly against her. She here lay to for the fine steamer *Mercury*, belonging to the same company, which was on her way to Dublin, and was not passed by the *Mercury* for several miles. This was the more remarkable, as the steamer has engines of 200-horse power, while the *Waterwitch's* are little more than 30. Having put about, she ran back the distance from the Cloch to Greenock in 45 minutes, against a strong ebb tide; this, allowing one and a half miles for the force of the tide, was at the rate of fully nine miles an hour. This far exceeded the most sanguine expectations of the builders and machinists, who had calculated on between six and seven miles per hour. The *Waterwitch* is built of iron, and is altogether a vessel of peculiar beauty of mould, and reflects much credit on the modellers, the Messrs. Denny, who are well known as the draughtsmen of most of the very swift steamers plying in the Clyde, belonging to the Railway and Castle Companies; and the *Waterwitch* is far indeed from detracting from their high character, as her singular elegance of form has attracted much notice while she was lying in our harbour. This is the first vessel on this principle that has been built and fitted out on the Clyde. The advantage to be derived by the application of this auxiliary power must be at once obvious.—*Greenock paper.*

MONKWEARMOUTH COLLIERY.—The workmen employed at the Monkwearmouth Colliery arrived at the Hutton seam, on Saturday last, when in the neighbourhood of the extensive glass-works of Messrs. Hartley and Co. The seam lies 19 fms. beneath the Bensham, which is 280 fms. below the surface. It is 4 ft. 10 in. in thickness, of excellent quality, and will, of course, considerably increase the value of the colliery. This mine excites much interest in scientific circles, from the circumstance of its being the deepest in the world. Its sinking was commenced in May, 1826, but so great were the difficulties to be encountered, that it was not till August, 1831, that the first coal formation was found, which was only an inch and a half thick. In October, 1844, a seam of greater thickness and value was discovered; and now that the Hutton seam has been reached, it is confidently expected that the proprietors will be remunerated for the spirited manner in which they have prosecuted their undertaking.—*Newcastle paper.*

SPECULATION IN 1845.

A curious document has come to light, in the shape of a report from the Registrar-General of Joint-Stock Companies to the Privy Council for Trade, for 1845. It forms a gigantic index of upwards of 50 folios to the doings in railway speculation for the past year, and can be likened, in its length and curious disclosures, to nothing else but the ramifications of a Welsh pedigree, or Homer's catalogue of ships. An interesting biography, or book, upon bubbles might be wrought out of it in the hands of a judicious selector. It is, moreover, a mirror of that memorable period of national hallucination when every bubble was invested with a value, as the true offspring of the joint-stock genius of England, by the then reigning epidemic of speculative cupidity and caprice. In the return every scheme is impaled as nicely as ephemera in the folios of a naturalist. Each scheme is accurately named and numbered, so that all whom it concerns may take notice, and see how the multiplied schemes that came out starred with premiums have given up the ghost of a moonshine existence, and found a place in the catalogue of all defunct things. This list is an eloquent *éloge* of the wild spirit of project and speculation that characterised the past, and will be highly useful to the posterity of speculators and projectors in all time to come. The report is but a record of the establishment of the evil of a plethoric speculation, without at all unveiling the disastrous and uncalculating consequences that followed the most puissant period of speculation in the world's history; consequences that can only be adequately arrived at by diving into the depths of woe and Whitecross-street, which is said to be half peopled with speculators and projectors, who had a chief hand in the late railway game of hazard. The list consists of 53 pages, and contains the titles and specifications of 1520 schemes, the offspring of 1845—the majority being for railways, water companies, banks, insurances, mines, and an immensity of other joint-stock corporations. The year opened with a mere handful, but, as the days rolled on and the fever became fiercer, they doubled, trebled, and quintupled in quantity, until, in in September, October, and November, they came thickly thundering on, at the rate of from 100 to 300 and 500 a-month, and an average in September—the most prolific of all months—of from 16 to 46 each day, or 457 in the month, as will be seen by the following analysis of the return. In December, when the panic rang the tocsin of alarm, and the excitement was gradually subsiding, the climacteric was 31.

The following shows the number of projects registered each month, with the aggregate totals for the same:—

	No. Registered.	*Total.*		*No. Registered.*	*Total.*
January	16	16	July	91	401
February	30	46	August	175	573
March	25	73	September	457	1035
April	52	126	October	363	1401
May	81	218	November	86	1488
June	90	309	December	31	1520

Total schemes registered from January to December ..... 1520.

The period, it is well known, gave rise to the most whimsical and Quixotic schemings, and we select from the 1520! some of the most amusing anomalies and nondescripts:—

The People's Colliery Company
Melides Anglo-Franceza Mining Company
Biographical Dictionary Society
St. Marylebone and Paddington Joint-Stock Building and Trading Company
White Knights Improvement Company, now called White Knights Estate Co.
Greenwich Bath Company
York-street Flax-Spinning Mill Company
Bury Athenæum Company
Lancashire and Yorkshire North-Eastern Railway Company
Wigton Joint-Stock Brewery Company
Tollesbury Oyster Company
National Land-Draining Company
Rotherham and Masbrough Public Bath Company
Wilder's Burton Brewery Company
Hull Cotton-Mill Company, now called Kingston Cotton-Mill Company
Victoria Dock and Grand Union Railway Company
National Joint-Stock, Loan, and Discount Company
Bristol and South Wales Junction Railway Extension Line to Monmouth Co.
Quartertown Cotton Joint-Stock Company
Economic Draining Tile and Brick Company
General Oceanic Telegraphic Company
Catholic Law and General Life Assurance Company
Northern Loan Association
Church of England Cemetery Company
National Land Drainage Company
Highbridge Market-House Company
Lancashire One Hundred Pounds Money Company
Drapers' Fire Insurance Company
Ocean Mutual Marine Assurance Institution
New Protecting Society
Norfolk and Suffolk Ramoneur Association
Australian, Sydney, Paramatta, Liverpool, Richmond, and Windsor Junction Railway Company
Mercantile Bill of Exchange, Discount and Loan Company
National Widows' and General Life Annuity and Assurance Society, now called Widows' National and General Life Annuity and Assurance Society
Fidelity Guarantee Society
London and Aberdeen Granite Company
Patent India Paper Manufacturing Company
Marine Glue Company
Wenham Lake Ice Company
Tehuantepec Ship Canal and Colonisation Company
Patent Cork-Cutting Company
Harwich Pier and Docks and Birmingham and Central England Grand Junction Railway Company, now called Harwich Docks and Birmingham and Central England Railway
Hull Worsted-Mill Company
Practicable, General, and Invalid Assurance Company
Dacca Sugar Company
Burnley Cotton-Twist Company
Defender Company, now called Property Protection and Insurance Company Against Fraud and Robbery
Great Hibernian Central Junction Railway Company
Craig Ddû Slate Company
Patent Timber Company
Great British Advertising Company
Railway Club-House, Chambers, and General Goods Depôt Company, now called Bank Approaches Improvement Company
British Class Journal Company
National Glass Company of Ireland
General Commercial Telegraph Company
National and General Harbours Company, by the adoption of Sleigh's Patent Buoyant Sea-Barrier, or Artificial Beach
Great British Railway Company
Great British Extension Railway Company
Hinckley Union Mill Company
Dudley, Wolverhampton, Tamworth, Syston, and Leicester Railway Company, now called Dudley, Wolverhampton, Walsall, and Tamworth Railway Co.
British and Colonial Provident Life Assurance Annuity Endowment, and Freehold Investment Company
Liverpool Joint-Stock Railway Bank Company
Thames and Scheldt Steam Navigation Company
Burnley Building Company
Manchester Auxiliary Investment Company
Bridlington Quay and Public Rooms Company
Wolverhampton, Walsall, Stamford, Peterborough, and Norwich Junction Railway Company, now called Wolverhampton, Walsall, Leicester, Peterborough, Norwich, and Great Yarmouth Junction Railway Company
Burnley, Bradford, Leeds, York, and Hull Direct Union Railway Company, now called Ribble and Humber Junction, or Preston, Blackburn, Burnley, Bradford, Leeds, York, and Hull Direct Union Railway Company
Mutual Investment Society
Fitzroy Investment Association
Hull Sugar Refining Company
Great British Railway Company
Royal Irish Glass Company
New Share and Stock Exchange Company
London Railway Company
Royal Grand Junction Railway Company, uniting the London and South-Eastern, the London and Brighton, the London and South-Western, and the Great Western Railways
Westminster and Charing-cross Building Company
London and Liverpool Direct Railway Company
Cooke's National Railway Company
Chorley Cotton-Twist Company
General Canal Steam Haulage Company
Philadelphia Steel-Works Company
Metropolitan and Brighton Sea-Water Conveyance Company
Provincial Sewage Manure Company
Great City Shambles Company
Midland Counties Coal-Fields Railway Company
Nova Scotia and New Brunswick Transit and Colonisation Company
Universal Railway Contracting Company
Joint-Stock Newspaper Company
Ulster Irish Centralisation Railway Company
London Circles Railway Company
Railway and General Gas Company
London and Harrow-on-the-Hill Direct Railway Company
Railway Land Investment Company
London Concentral Exchange and Junction Railway Company
Victoria Aqueduct Company
Inland Ports and Sea Ports Union Ship Railway and Goods Traffic Company
Isthmus of Darien, Atlantic, and Pacific Junction Railway, Harbour and Dock, and Steam-Packet Company, now called Isthmus of Darien, Atlantic, and Pacific Junction Railway, Harbours, Docks, Canal, and Steam-Packet Company.
Northampton General Cemetery Company
Metropolitan Necropoli, or Grand Eastern & Western Cemeteries Company, now called Metropolitan Necropoles, or Grand Eastern and Western Cemeteries Co.
Sheffield Coal Consumers' Company
Bradford Sanatory Building Company
Metropolitan and Great Western Junction Railways of Canada Company, from Toronto to London (Canada), now called Extension of the Great Western Railway of Canada from the District of London to Toronto
Direct City South Union Atmospheric Railway Company
Thames Tunnel and Metropolitan Suburban Junction Railway Company
Manchester District Circle and Lancashire and Cheshire Junction Railway Co.
Atmospheric Rapid Mail Conveyance Company
Great Independent London, Birmingham, Manchester, and Liverpool Direct Railway Company
United Iron and Railway Extension Company
Paddington and St. Albans Railway Company
Dublin Coal Ship Company
Railway Contracts Company
East of England Locomotive Engine-Building Company
Patriot Association
Malabar and Coromandel Coasts Junction Railway Company
Somersetshire Lighting Company
Devonshire Lighting Company
Law Chambers Society of Ireland
Norwich Church of England Burial Ground Company
British Patent Naphtha Company
Union Joint-Stock Building Company
Hibernian Coal and Peat Consumers' Company
Liverpool Stock Exchange Building Company
Draining and Flooring Tile Pottery and Brick Manufacturing Company
Great Metropolitan Artesian Water Company
England Life and Invalid Hazard Assurance Company
Grand European Mining and Manufacturing Iron Company
Miniature World, or Grand National Association
Grand National Association for the Profitable Employment of Capital, Skill, and Labour in Trade, Commerce, and Agriculture
Dublin Omnibus Conveyance Company
South London Newspaper Company
Patent Fibre Manufacturing Company
National Investment and Benevolent Land Association, for the Encouragement of Agricultural Labourers and Small Farmers
Adelaide Railway Company
West Kent Hop Company
Central Union Line to the North of England Railway Company
Hereford Cottage Association
Litherland Land Company
National Philanthropic Investment Company
Senator's Screw Ship Company

This disposes of section No. 1, of companies "provisionally" registered in 1845—amounting to 1520.

Section 2 gives a list of companies—57 in number—"completely" registered, during the same period.

Section 3 informs us that there have been no cases during the year, in which application has been made for the enforcement of penalties for failure to register, and result of the proceedings thereon.

Section 4 gives a list of those provisionally, but not completely, registered during 1845. It is principally a recapitulation of the previous list, and gives a total of 1484.

Section 5 affirms that no change has been made during the year in the return of the regulations made by the Committee of the Privy Council for Trade, with regard to the returns required to be made by companies.

Section 6 consists of a return of persons appointed to the office of registrar of joint-stock companies, and other officers and clerks, with their salaries, &c., 1845. From this it appears, that G. Taylor, formerly first clerk, was appointed assistant-registrar, "with a salary the same as formerly returned."—G. Crawford, assistant-registrar for Ireland, in the room of P. A. Moore, resigned, at a salary of 200*l.*—S. Pritchard, clerk, in the room of J. Y. Jameson, deceased, at a salary of 80*l.*

Section 8 furnishes a return of the amount of all fees paid at the offices for the Registration of Joint-Stock Companies, pursuant to the Act 7 and 8 Vic., c. 110, during the year 1845. It is as follows:—

FEES AT THE HEAD OFFICE IN LONDON.

Quarter from 1st January to 31st March	£465	11	9	
" 1st April to 30th June	1609	7	3	
" 1st July to 30th September	4032	19	5	
" 1st October to 31st December	3750	1	4	—9857 19 9

FEES AT HEAD OFFICE IN DUBLIN.

Quarter from 1st January to 31st March	£57	11	3	
" 1st April to 30th June	65	16	6	
" 1st July to 30th September	151	12	3	
" 1st October to 31st December	230	0	9	— 505 0 9
Total for the year 1845	£10,363	0s.	6d.	

The fee on capital of companies completely registered is at the rate of 1s. for every 1000*l.* in the case of provisionally registered companies, and 6d. for every 1000*l.* in the case of companies registered as existing.

Section 8 says that no change has been made in the return of the scale of fees appointed by the Lords of the Treasury for the services to be performed by the registrar, and of the respective amounts of such fees.

Section 9 states that no cases in which companies have failed to appoint auditors, and of the proceedings taken thereon during the year, have come within the knowledge of the registrar.

Section 11, the return of the number of bankruptcies of joint-stock companies, and of the amount of the debts and assets of such companies—gives the name of the Forth Marine Assurance Company (date of fiat, 2d July, 1845), but states that the amount of debts and liabilities have not yet been ascertained.

The following is a summary of the provisional registrations during the year:—

	Railway Companies.	*Others.*	*Total.*
January	8	8	16
February	14	17	31
March	17	9	26
April	41	12	53
May	81	11	92
June	76	15	91
July	60	32	92
August	136	40	176
September	401	57	458
October	281	85	366
November	35	52	87
December	8	24	32
Totals	1158	362	1520

PROGRESS OF RAILWAY LEGISLATION IN THE HOUSE OF COMMONS.—From a Parliamentary paper just published, entitled, "List of Petitions and Private Bills in Parliament, and proceedings thereupon, session 1846," it appears that 562 petitions for railway bills have been presented, and that in respect of 386 of such petitions, bills have been read the first time, of which 370 have been read the second time, and seven the third time—viz., Brighton and Chichester (Steyning Branch); Brighton, Lewes, and Hastings Deviations, &c.; Direct London and Portsmouth; Eastern Union and Hadleigh Junction; London and York; Sheffield and Lincolnshire Junction; and South-Eastern, Tunbridge-wells to Rye. Fourteen bills have been withdrawn, and proceedings appear to be suspended as to 43 bills, and there are 130 petitions for bills upon which no reports have been made.

NORTH KENT RAILWAY.—There has just been published, by order of the House of Commons, a statement in support of the petition from the parish of Camberwell, against the North Kent Railway Bill. The petitioners, among other reasons against the bill, urge that it will require the demolition of 640 houses in Southwark, Lambeth, and their vicinities, and that it will pass close to several churches and places of worship, and urge that as there has been issued a Royal Commission to consider the question of metropolitan railways and termini, the North Kent Line should be referred to that commission—a recommendation which is supported by the authority of Sir R. Peel, who declared, that were he chairman of the committee of Group 14, he should suspend his judgment on the metropolitan portion of the North Kent Line until that commission had reported on the subject. Various other reasons are urged against the scheme, and the petitioners declare that they are ready to support every material allegation by the evidence of persons unconnected either with the North Kent Railway, or with any of the rival schemes.

INFRINGEMENT OF AN IMPORTANT CHEMICAL PATENT.

COURT OF COMMON PLEAS—APRIL 16.

GAMBLE *v.* KURTZ.—This was an action brought to recover compensation in damages for the infringement of a patent. The plaintiff had invented an apparatus for decomposing common salt in the manufacture of muriatic acid and sulphate of soda, and it was alleged that the improvement upon the process formerly employed for similar purposes consisted in the adoption of two iron retorts or furnaces (the one for decomposing, and the other for wasting) instead of brick furnaces. The defendant had been in the habit of using an apparatus, constructed upon a similar principle, and it was alleged that he had pirated the plaintiff's invention. The defendant pleaded several pleas, to the effect that he was not guilty—that the plaintiff was not the inventor of the apparatus in question; that the invention, if new, was not properly described in the specification, and that the use of the plaintiff's machinery was no improvement in the manufacture of sulphate of soda. The case was tried before Mr. JUSTICE COLTMAN at the Middlesex sittings after last term, when the jury returned the following special verdict:—"Assuming the models laid before the court to be correct, we find that the plaintiff's patent has been infringed; secondly, that the invention of two separate chambers or furnaces is not new, but that the plaintiff's mode of connecting the same is new; thirdly, that the specification is sufficient; and fourthly, that the process patented is an improvement upon the old system of producing sulphate of soda."—Mr. SERJEANT CHANNELL now moved for a rule to show cause why the verdict should not be entered for the plaintiff upon the second and third issues, and he contended that such ought to have been the finding of the jury. The Court took time to consider—the LORD CHIEF JUSTICE observing that, doubtless, some application would hereafter be made by the defendant.

Recent advices from Valparaiso state, that the favourable accounts of the sales of copper kept the prices of ores firm. Shipments were increasing, as the mines were found to have been worked with success. The exchange on England was 45d., the price of silver was $10 per marc; dollars were 7 per cent. premium.

VELOCITY OF PROJECTILES.—A report has been made to the Paris Academy of Sciences by M. Duhamel on experiments made by Capt. Didion, of the Artillery, to determine the velocity of projectiles, and the resistance they encounter in passing through the air. The conclusion of the report is, that the resistance of the air cannot be considered as in proportion with the square of the velocity; and that the law of this resistance may be represented by two solutions respectively proportioned to the square and cube of the velocity.

ANHYDROUS, OR DRY, STEAM.—A patent has been taken out lately for improvements in steam-engines, the principle of which, we understand, is founded on the use of anhydrous steam. The inventor, Dr. Haycraft, has been favourably known to the scientific world by his researches into the capacities of the different gases for caloric, published by the Royal Society of Edinburgh in their *Transactions*, and referred to in the first volume of the *Transactions of the British Association*, chiefly in relation to the atomic theory. It is some years since, if we mistake not, that Dr. Haycraft developed his theory on the use of anhydrous steam, which is founded on the fact, that if water be deposited in the interior of a cylinder of a steam engine, it subsequently is evaporated every time the eduction valve is opened, and by its evaporation tends constantly to cool down the cylinder in a ratio proportionate to the evaporation, and consequently to the quantity of water deposited in the cylinder. The theory itself is novel, and derives strong support from the facts of the case. It has been long known to practical men, that if a boiler, in consequence of deficient steam room, or from other causes, primes considerably, a much increased consumption of fuel is required, while at the same time the power in the engine is diminished. To this cause may be attributed the enormous diminution of the power of locomotive engines in proportion to the fuel employed, as compared with other engines, where a sufficiency of steam room is attainable. How far Dr. Haycraft has succeeded in his attempts to reduce his theory to practice remains to be seen. An experiment has been made which, though not complete, seems to promise fair. Mr. Penn, of Greenwich, has applied the invention to a small flour mill with the result, as we are informed, of a consumption of only 4 lbs. per horse power per hour, and this, though the engine is low pressure, and the boiler a temporary one, with deficient steam room, and exposed to the weather. The peculiar care taken in the Cornish engines to render the steam perfectly anhydrous, doubtless contributes, together with their great size, to render their proportional consumption of fuel so small. Their construction, unfortunately, renders them inapplicable for general purpose; but we see no reason, why the same principle of using anhydrous steam should not be applied to engines of the ordinary construction. We are informed, that neither high pressure nor dry heat, as it is called, is used by the patentee to produce his results. Steam passes through vessels, or tubes, heated by fires, have been frequently used, and from obvious causes have signally failed.—*Mechanics' Magazine.*

PATENT IMPROVEMENTS IN CHRONOMETERS.
WATCHES, AND CLOCKS.—E. J. DENT, 82, Strand, and 33, Cockspur-street, watch and clock maker, BY APPOINTMENT, to the Queen and his Royal Highness Prince Albert, begs to acquaint the public, that the manufacture of his chronometers, watches, and clocks, is secured by three separate patents, respectively granted in 1836, 1840, 1842. Silver lever watches, jewelled in four holes, 6 gs. each; in gold cases, from £8 to £10 extra. Gold horizontal watches, with gold dials, from 8 gs. to 12 gs. each.
DENT'S PATENT DIPLIEDOSCOPE, or meridian instrument, is now ready for delivery. Pamphlets containing a description and directions for its use 1s. each, but to customers gratis.

GRATIS.—A LIST of PATENTS and REGISTRATIONS for the MONTH of FEBRUARY, may be had (gratis) on application at the PATENT OFFICE, 89, CHANCERY-LANE, or will be sent free, by post, on receipt of two stamps, together with a Prospectus, containing charges and necessary information for PATENTS and REGISTRATIONS.—Further particulars may be had by applying to Messrs. Barlow and Le Capelain, the Patent Office, 89, Chancery-lane.

UNIVERSAL GAS LIGHT COMPANY.—CONTRACTS TAKEN for LIGHTING UP, with a SUPERIOR GAS, and at a REDUCED RATE—towns, villages, lighthouses, dockyards, hospitals, theatres, public offices, manufactories, printing-offices, prisons, barracks, railway stations, asylums, schools, and other large buildings, where the ordinary gas is not accessable.—Letters to be addressed to Mr. William Nicholson, secretary, 159, Drury-lane.

BY HER MAJESTY'S ROYAL LETTERS PATENT.
SMART'S ELLIPTICAL CONVEX METALLIC PADDLE FLOATS, FOR PROPELLING STEAM-SHIPS.—The very great superiority of this invention over the common float, in *all points*, having been fully proved by its use on various steamers of from 90 to upwards of 200-horse power—and applications being made for licensing several iron steamers, from 70 to 300-horse power, the patentee confidently recommends it to the Government and the public generally.
Its superiority consists, in beauty of appearance, stability, durability, its property of greatly reducing vibration and undulation, inexpensiveness, powerful agency in checking a ship in chance of collision—and what is of the greatest consequence, giving an immense increase of speed. All these must have a powerful influence, not only on steam proprietors, but more especially on the minds of the steam-travelling public.
These Floats can be easily applied to any wheel.
Applications for license (for which a fee of 10s. per horse-power is charged) to be made to the patentee, Mr. Robert Smart, 5, Grenville-place, Hotwells, Bristol, or his agents.

LONDON ASSURANCE CORPORATION.
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The following rates will be found to bear comparison with those of any firmly-established and undoubtedly responsible office:—

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Age.	*PARTICIPATING.*	*NON-PARTICIPATING.*
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20	2 0 2	1 15 11
30	2 10 8	2 5 11
40	3 5 1	3 0 0
50	4 10 7	4 5 7
60	6 12 5	6 5 11
65	8 4 11	7 16 9

The rates for all other ages, and a detailed prospectus, containing their very liberal conditions, and the rates under their nine other tables, may be had on application at their *OFFICES, 7, ROYAL EXCHANGE, CORNHILL—10, REGENT-STREET;* and of any of the corporation agents in Great Britain and Ireland.
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Age 20.	Age 30.	Age 40.	Age 50.	Age 60.
£0 17 0	£1 1 1	£1 8 2	£2 1 0	£3 4 2

Thus £1000 may be assured at the age of 30 by the annual payment of £10 10s. 10d. or the first five years.
The whole of the profits divided ANNUALLY among the members, after payment of five annual premiums.
An ample guaranteed capital, in addition to the fund continually accumulating from premiums, *fully sufficient* to afford complete security to the policy-holders.
Members assured to the extent of £1000 entitled (after payment of five annual premiums) to attend and vote at all general meetings, which will have the superintendence and control of the funds and affairs of the society.
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SEYSSEL ASPHALTE COMPANY—CLARIDGE'S PATENT.—ESTABLISHED MARCH, 1838,
FOR WORKING THE MINERAL ASPHALTE ROCK OF PYRIMONT SEYSSEL,
A Bituminous Rock, situate on the Eastern side of the Jura.
PRINCIPAL DEPOTS:
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The ASPHALTE OF SEYSSEL has been EXTENSIVELY USED, since March, 1838, for the following useful purposes:—

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KITCHEN FLOORS	PIGGERIES, &c.
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BARN FLOORS	
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